4300 STEVENS CREEK BOULEVARD AIR QUALITY ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address air quality and community health risk impacts associated with the proposed mixed-use project located at 4300 Stevens Creek Boulevard in San José, California. The air quality impacts from this project would be associated with demolition of the existing land use, construction of the new buildings and infrastructure, and operation of the project. Air pollutant emissions associated with construction and operation of the project were estimated 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 approximately 9.22-acre site is currently developed with three existing office buildings and associated surface parking lots. The project proposes to demolish the existing building and parking lots and construct three residential buildings with 580 residential units and a 250-room hotel with approximately 8,250 square feet (sf) of ground-floor retail. Two of the residential buildings would provide 407 market rate units, and the third would provide 173 below market rate units. Vehicle parking would be provided in a parking garage within each building totaling 725 parking spaces.

Setting

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

Air Pollutants of Concern

High ozone 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 (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

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

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality. 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 description of the community 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, residential locations are assumed to include infants and small children and children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. The closest sensitive receptors to the project site are the residents in the multi-family apartments to the south of the site across Albany Drive. There are additional sensitive receptors at farther distances to the north of the site. Additionally, 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 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.

[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.

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 (PM_{10} 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.

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 retrofitted

[3] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.
[4] California Air Resources Board, 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.

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 in the future.

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 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.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). 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, as having an overall CalEnviroScreen

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

score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.[6] 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 not within a CARE area and not within a BAAQMD overburdened area as identified by CalEnviroScreen.

The BAAQMD California Environmental Quality Act (*CEQA) Air Quality Guidelines*[7] 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 TACs, odors, and greenhouse gas (GHG) emissions. *Attachment 1* includes detailed community 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:

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-10.5 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.

[6] See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en , accessed 10/1/2021.
[7] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

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

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

Applicable Goals – Toxic Air Contaminants

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

Applicable Policies – Toxic Air Contaminants

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

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

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

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

Actions – Toxic Air Contaminants

MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of 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 – Objectional Odors

Goal MS-12 Minimize and avoid exposure of residents to objectionable odors.

Applicable Policies – Objectional Odors

MS-12.2 Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size and operations of the facility.

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 these thresholds 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
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	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	

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases.

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*.[8] 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 the planned land uses identified in 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. General Plans must show consistency with the control measures listed within the Clean Air Plan. However, at the project-level, there are no consistency measures or thresholds. Despite this, the proposed project would not conflict with the latest Clean Air planning efforts since 1) the project would have construction and operational emissions below the BAAQMD thresholds (see Impact 2 below), 2) the project would be considered urban infill, 3) the project would be located near employment centers, and 4) 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 PM_{10} 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 PM_{10}, 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), PM_{10}, 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, size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2021 (EMFAC2021) model was used to predict emissions from

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

construction traffic, which includes worker travel, vendor trucks, and haul trucks.[9] 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 land uses were entered into CalEEMod as described in Table 2.

Table 1. Summary of Project Construction Land Use Inputs

Project Land Uses	Size	Units	Square Feet	Acreage
Apartments Mid Rise	580	Dwelling Units	591,849	9.22
Hotel	250	Rooms	152,903	
Strip Mall	8.26	1,000 Square Feet	8,259	
Enclosed Parking with Elevator	725	Parking Spaces	332,270	

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 CalEEMod defaults for a project of this type and size that was then reviewed and updated by the project applicant.

The project construction equipment worksheet approved by the applicant included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays was based on CalEEMod defaults. 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 January 2023 and the project would be built out over a period of approximately 31 months or 664 construction workdays. The earliest year of operation was assumed to be 2026.

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 for demolition and grading were estimated from the provided demolition and grading volumes

[9] See CARB's EMFAC2021 Emissions Inventory at https://arb.ca.gov/emfac/emissions-inventory

and assuming each truck could carry 10 tons per load. The number of concrete and asphalt total round haul trips were estimated 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 2023-2025 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 2. 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.
Demolition	450	-	907	77,060-sf of existing building demolition and 250,000 tons of pavement demolition. Default worker trips.
Site Preparation	360	-	-	Default worker trips.
Grading	900	-	1,031	8,250-cy of export soil volumes. CalEEMod default worker trips.
Trenching	225	-	-	CalEEMod default worker trips.
Building Construction	312,000	71,500	1,778	Estimated 200,000-sf of cement. CalEEMod default worker and vendor trips.
Interior Construction	4375	-	-	CalEEMod default worker trips.
Paving	525	-	122	Estimated 55,000-sf of asphalt. CalEEMod default worker trips.

Notes: [1] Based on 2023-2025 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 asphalt trips estimated based on proposed building and asphalt GSF.

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 unmitigated annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project.

As indicated in Table 4, annualized project construction ROG emissions are predicted to exceed the BAAQMD significance thresholds for ROG in 2025. However, with implementation of *Mitigation Measures AQ-1 through AQ-3*, the ROG emissions would be reduced to a level below the significance thresholds of 54 pounds per day. All other construction criteria pollutants emissions are below the BAAQMD thresholds.

Table 3. Construction Period Emissions - Unmitigated

Year	**ROG**		**NOx**		**PM_{10} Exhaust**		**$PM_{2.5}$ Exhaust**	
Construction Emissions Per Year (Tons)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2023	0.27	0.09	2.63	1.74	0.12	0.01	0.11	0.01
2024	0.19	0.07	1.76	1.43	0.08	0.01	0.08	0.01
2025	5.14	1.04	0.63	0.59	0.03	<0.01	0.03	<0.01
Annualized Daily Construction Emissions (pounds/day)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2023 (260 construction workdays)	3.64	2.20	25.68	18.83	1.34	0.50	1.03	0.25
2024 (262 construction workdays)	2.91	1.98	18.58	16.05	1.02	0.50	0.74	0.25
2025 (142 construction workdays)	**73.82**	16.03	13.69	13.22	0.80	0.46	0.52	0.22
BAAQMD Thresholds (pounds per day)	*54* lbs./day		*54* lbs./day		*82* lbs./day		*54* lbs./day	
Exceed Threshold?	**Yes (2025)**	No	No	No	No	No	No	No
Notes: Unmit = Unmitigated, Mit = Mitigated								

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust 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. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices* needed to control $PM_{2.5}$ concentrations at nearby sensitive receptors.

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Standard Measures to Control Particulate Matter Emissions 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

Mitigation Measure AQ-1 represents standard mitigation measures that would achieve greater than a 50 percent reduction in on-site fugitive $PM_{2.5}$ emissions. These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" to control construction emissions.

Mitigation Measure AQ-2: Use Construction equipment that has low diesel particulate matter exhaust and NO_X emissions.

Exhaust Emission (NOx and PM) Control Measures:

Implement a feasible plan to reduce diesel particulate matter emissions by 50 percent such that increased cancer risk and annual $PM_{2.5}$ concentrations from construction would be reduced below TAC significance levels is 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 NOx and PM (PM_{10} 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 2 or 3 engines and include particulate matter emissions control equivalent to CARB verifiable diesel emission control devices that altogether achieve a 50 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).

    b. Use of electrical or non-diesel equipment with lower NOx emissions that meet the NOx and PM reduction requirements above.

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 50 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.

Mitigation Measure AQ-3: Require use of low VOC coatings to reduce ROG emissions.

The project shall use “super-compliant" low volatile organic compound (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 80 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 80 percent of coatings applied 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.[10]

Effectiveness of Mitigation AQ-2 and AQ-3

The effectiveness of MM AQ-2 and AQ-3 are based on CalEEMod modeling conducted to estimate the impacts associated with using Tier 4 interim construction equipment and using 80 percent interior and exterior "super-compliant" coatings. These measures together were found by CalEEMod to reduce on-site construction ROG emissions by 79-percent and below the significant threshold.

Operational Period Emissions

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

CalEEMod Inputs

Land Uses

The project land uses were input to CalEEMod as described above for the construction period modeling.

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 2026 if construction begins in 2023. Emissions associated with build-out later than 2026 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 project would produce approximately 2,480 net daily trips when considering the *Residential/Retail Internal Capture Reduction, Location-Based Vehicle Mode Shore Reduction, Project-Specific Trip Reduction* and existing trip adjustments applied in the traffic analysis. The daily trip generation was calculated using the size of the project and the adjusted total automobile

[10] SCAQMD: http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings
[11] Email correspondence with Patrick Kallas, Associate Project Manager, David J. Powers & Associates, Inc., October 20, 2021.

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 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 default vehicle emission factors and fleet mix were updated using the emission rates and fleet mix from EMFAC2021. On road emission rates from 2026 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]

Climate Smart San José

Climate Smart San José is a plan to reduce air pollution, save water, and create a stronger and healthier community. The City approved goals and milestones in February 2018 to ensure the City can substantially reduce GHG emissions through reaching the following goals and milestones:

- All new residential buildings will be Zero Net Carbon Emissions (ZNE) by 2020 and all new commercial buildings will be ZNE by 2030 (Note that ZNE buildings would be all electric with a carbon-free electricity source).
- San José Clean Energy (SJCE) will provide 100-percent carbon-free base power by 2021.
- One gigawatt of solar power will be installed in San José by 2040.
- 61 percent of passenger vehicles will be powered by electricity by 2030.

The California Energy Commission (CEC) updates the California Building Energy Efficiency Standards every three years, in alignment with the California Code of regulations. Title 24 Parts 6 and 11 of the California Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) address the need for regulations to improve energy efficiency and combat climate change. The 2019 CAL Green standards include substantial changes intended to increase the energy efficiency of buildings. For example, the code encourages the installation of solar and heat pump water heaters in low-rise residential buildings. The 2019 California Code went before City Council in October 2019 for approval, with an effective date of January 1, 2020. As part of this action, the City adopted a "reach code" that requires development projects to exceed the minimum Building Energy Efficiency requirements.[13] The City's reach code applies only to new residential and non-residential construction in San José. It incentivizes all-electric construction, requires increased energy efficiency and electrification-readiness for those choosing to maintain the presence of natural gas. The code requires that non-residential construction include

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

[13] City of San José Transportation and Environmental Committee, *Building Reach Code for New Construction Memorandum,* August 2019.

solar readiness. It also requires additional EV charging readiness and/or electric vehicle service equipment (EVSE) installation for all development types.

Energy – Electricity

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. CalEEMod has a default emission factor of 807.98 pounds of CO_2 per megawatt of electricity produced, which is based on San José Clean Energy (SJCE)'s 2021 emissions rate. This intensity factor was used in the model along with the assumption that the project would use electricity supplied by SJCE. SJCE would provide electricity that would be 100-percent carbon free by 2021 before the project becomes operational.[14] Electricity was assumed to be 100-percent carbon free in the model since this project would be operational post-2021. Electricity emissions only affect indirect emission of GHG.

Energy – Natural Gas

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.[15] This ordinance applies to any new construction starting August 1, 2021. Therefore, natural gas use for the project use was set to zero and assigned to electricity use.

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 percent aerobic/anerobic conditions to represent wastewater treatment plant conditions. The project site would not send wastewater to septic tanks or facultative lagoons.

Existing Uses

The existing site consist of three office buildings and associated surface parking lots. A CalEEMod model run was developed to compute emissions from use of the existing land uses as if it were operating in 2026. Inputs for the existing conditions scenario included 136,800-sf entered as "General Office Building" and 6.08 acres entered as "Parking Lot". The existing trip generation rates and other inputs were applied to the existing modeling in the same manner described for the proposed project. Historical energy usage was applied.

[14] Kerrie Romanow and Rosalynn Hughey, City of San José, 2019. *Building reach Code for New Construction Memorandum*. August. Web: https://sanjose.legistar.com/LegislationDetail.aspx?ID=4090015&GUID=278596A7-1A2B-4248-B794-7A34E2279E85

[15] City of San Jose, 2020. "Expand Natural Gas Ban", December. Web: https://www.sanjoseca.gov/Home/Components/News/News/2210/4699

Summary of Computed Operational Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimating assuming 365 days of operation. Table 5 shows unmitigated net average daily operational emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. The unmitigated operational period emissions would not exceed the BAAQMD significance thresholds.

Table 5. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2026 Annual Project Operational Emissions (*tons/year*)	5.41	1.26	2.41	0.63
2026 Existing Use Emissions (*tons/year*)	1.04	0.39	0.59	0.15
Net Annual Emissions (*tons/year*)	4.37	0.87	1.82	0.48
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2026 Daily Project Operational Emissions (*pounds/day*)[1]	23.96	4.76	9.98	2.61
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*
Notes: [1]Assumes 365-day operation.				

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

Project impacts related to increased community 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. This 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 not include the installation of any stationary TAC emissions sources but would increase 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.

Community Risk Methodology for Construction and Operation

Community TAC risk impacts were assessed 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 of TACs. These sources include on-site construction activity, construction truck hauling, project generators, 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,[17] 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 over the 30-year period. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum risk 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 community 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 all existing residences to the south and north the project site, 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.

Community 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 community risk impacts associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust (i.e., DPM) 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 $PM_{2.5}$.[18] 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 PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total DPM emissions from all construction stages estimated to be 0.24 tons (474 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of half a mile

[17] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines.* December 2016.
[18] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

was used to represent vehicle travel while at or near the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod to be 0.20 tons (398 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (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.[19] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

Construction Sources

Combustion equipment DPM exhaust emissions were modeled as a series of point sources with a nine-foot release height (or 2.74 meters, the exhaust stack height of construction equipment) placed at 33 feet (10 meter) intervals throughout the construction site. This resulted in 313 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area, with DPM emissions occurring throughout the project construction site. In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918˚F, and an exit velocity of 309 feet per second. Plume rise for each point source was calculated by AERMOD. Emissions from vehicle travel on- and off-site were also included with the point sources throughout the site. The locations of the point sources used for the modeling are identified in Figure 1.

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

AERMOD Inputs and Meteorological Data

AERMOD 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 daily between 7:00 a.m. to 4:00 p.m. when the majority of construction activity is expected to occur. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2023-2025 period were computed by the model. DPM and $PM_{2.5}$ concentrations were computed at nearby sensitive receptor locations. Receptor heights of 5 feet (1.5 meters) and 15

[19] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

feet (4.5 meters) were used to represent the breathing heights of residents on the first and second floors in nearby single- and multi-family residences.[20]

Summary of Construction Community Risk Impacts

The increased cancer risk calculations applied the BAAQMD recommended age sensitivity factors as described in *Attachment 1*. 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 reference exposure level of 5 $\mu g/m^3$.

The maximum modeled annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the construction MEI was located on the first floor (5 feet above ground) of the nearest multi-family residence to the south of the project site opposite Albany Drive. The location of the MEI and nearby sensitive receptors are shown in Figure 1. Table 6 summarizes the community 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.

Community Risks from Project Operation – Stationary Equipment and Traffic

Stationary equipment that could emit substantial TACs (e.g., emergency generators) are not planned for this project. Operation of the project would have long-term emissions from mobile sources (i.e., traffic). Per BAAQMD recommended risks and methodology, a road with less than 10,000 total vehicles per day is considered a low-impact source of TACs.[21] This project would generate 2,480 net daily trips[22] dispersed on the roadway system with a majority of the trips being from light-duty vehicles (i.e., passenger automobiles), which is a fraction of 10,000 daily vehicles. Therefore, emissions from project traffic are considered negligible and not included within this analysis.

Summary of Project-Related Community Risks at the Offs-Site Project MEI

For this project, the sensitive receptor identified in Figure 1 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to three years of construction and 27 years of project operation. The annual $PM_{2.5}$ concentration and HI values are based on an annual maximum for the entirety of the project. As shown in Table 6, the unmitigated maximum cancer risks from construction activities at the MEI location would exceed the BAAQMD single-source

[20] 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

[21] 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

[22] Email correspondence with Patrick Kallas, Associate Project Manager, David J. Powers & Associates, Inc., October 20, 2021.

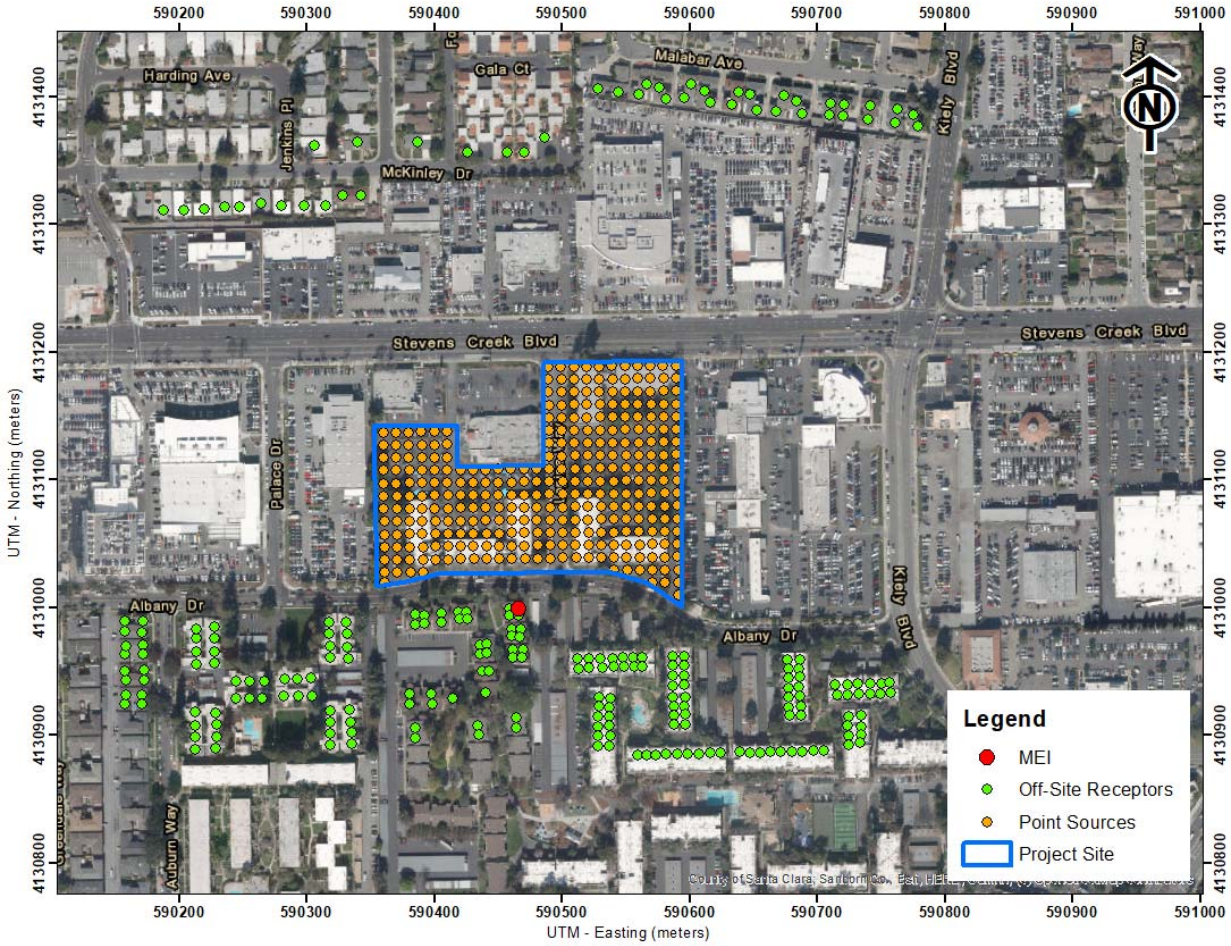
significance threshold. However, with the incorporation of the *Mitigation Measure AQ-1 and AQ-2*, the mitigated risk and hazard values would no longer exceed the BAAQMD single-source significance thresholds. The unmitigated $PM_{2.5}$ concentration and HI at the MEI do not exceed their respective BAAQMD single-source significance thresholds.

Table 6. Construction and Operation Risk Impacts at the Off-Site Project MEIs

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	**18.03 (infant)**	0.28	0.01
	Mitigated*	2.51 (infant)	0.11	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated*	*No*	*No*	*No*

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

Figure 1. Locations of Project Construction Site, DPM Point Sources, and Maximum TAC Location (MEI)

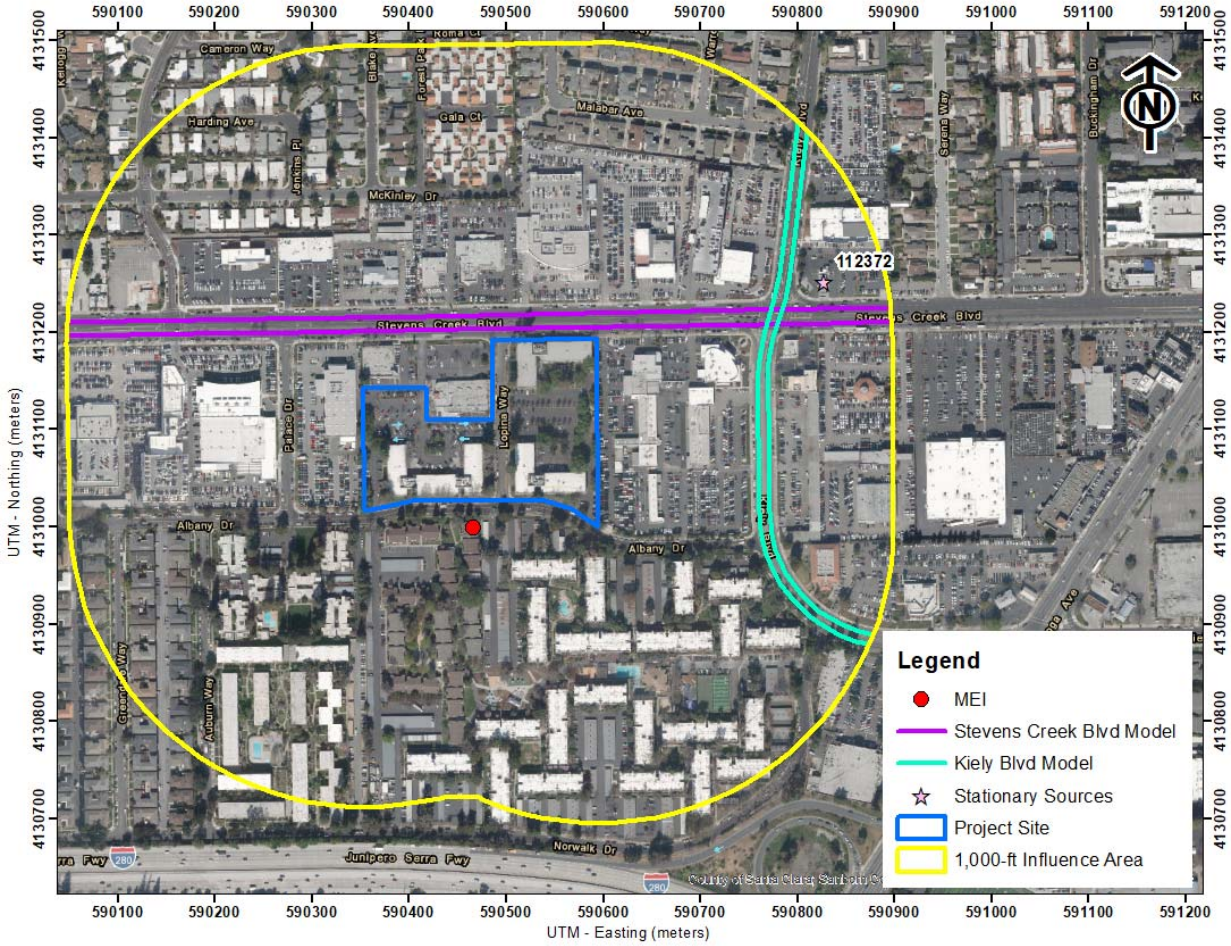


Cumulative Community Risks of all TAC Sources at the Off-Site Project Childcare MEI

Community 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.

Based on a review of BAAQMD's stationary source map website and the traffic information provided by the traffic consultant, one existing stationary source of TACs and two roadways that would exceed 10,000 vehicles per day were found; Stevens Creek Boulevard and Kiely Boulevard. Other nearby streets are assumed to have less than 10,000 vehicles per day. Figure 2 shows the location of the existing TAC sources affecting the MEI. Community risk impacts from these sources upon the MEI are reported in Table 7. Details of the modeling and community risk calculations are included in *Attachment 5.*

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



Local Roadways – Stevens Creek Boulevard and Kiely Boulevard

A refined analysis of potential health impacts from vehicle traffic on the Stevens Creek Boulevard and Kiely Boulevard was conducted. This involved predicting emissions for the traffic volume and mix of vehicle types on the roadways near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks were then computed based on the modeled exposures. *Attachment 1* includes a description of how community risk impacts, including cancer risk are computed.

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Stevens Creek Boulevard and Kiely Boulevard using the Caltrans version of the CARB 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 (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. $PM_{2.5}$ 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 the emissions estimate. DPM emissions are projected to decrease in the future as 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),[23] traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2023 – construction start year), and season (annual).

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 MEI and project site, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2023 (construction start 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 2023 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The ADT on the roadways were based on AM and PM peak-hour background plus project traffic volumes for the nearby roadways provided by the project's traffic consultant.[24] Assuming a 1 percent per year increase, the predicted ADT on Stevens Creek Boulevard would be 25,568 vehicles and the predicted ADT on Kiely Boulevard would be 14,794 vehicles. Average hourly

[23] 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

[24] Email correspondence with Patrick Kallas, Associate Project Manager, David J. Powers & Associates, Inc., December 2, 2021., Attachment: *4300 Stevens Creek Volume Spreadsheet for DJP 2021-12-01_rev.xlsx.*

traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[25] 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, other than during peak a.m. and p.m. periods, an average speed of 40 mph on Stevens Creek Boulevard and 30 mph on Kiely Boulevard was assumed for all vehicles based on posted speed limit signs on the roadways. Traffic speeds during the peak a.m. and p.m. periods were assumed to be 5 miles per hour slower (i.e., 35 mph / 25 mph) to account for commute congestion and the amount of access in the area.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD dispersion model, which is recommended by the BAAQMD for this type of analysis.[26] TAC and $PM_{2.5}$ emissions from traffic on Stevens Creek Boulevard and Kiely Boulevard within about 1,000 feet of the project site was evaluated with the model. Emissions from vehicle traffic were modeled in AERMOD using a series of area sources along a line (line area sources), with line segments used to represent the travel lanes on the roadways. The same meteorological data and off-site sensitive receptors used in the construction dispersion modeling were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and $PM_{2.5}$ concentrations at the project MEI for 2023 from traffic on the roadway were calculated using receptor heights of 5 feet (1.5 meters) to represent the breathing heights on the first floor of the nearby residence.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, $PM_{2.5}$ concentration, and HI impacts from Stevens Creek Boulevard and Kiely Boulevard on the project MEI are shown in Table 7. Figure 2 shows the roadway links used for the modeling, MEI, and other 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 the roadways' traffic are provided in *Attachment 5*.

<u>BAAQMD Permitted Stationary Sources</u>

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website,[27] 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. One source was identified using this tool, a gas dispensing facility. A stationary source information request was not required as the BAAQMD GIS website provided screening risks and hazards for this source.

The screening level risks and hazards provided by BAAQMD for the stationary source were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Gas Dispensing*

[25] 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.
[26] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012
[27] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

Facilities. Community risk impacts from the stationary sources upon the MEI are reported in Table 7.

Summary of Cumulative Risks at the Project MEI

Table 7 reports both the project and cumulative community risk impacts at the sensitive receptors most affected by project construction and operation (i.e., the project MEI). Without mitigation, the project's community risk from project construction activities would exceed the maximum increased cancer risk single-source threshold. The annual $PM_{2.5}$ concentration and hazard risk values, which include both the unmitigated and mitigated conditions, would not exceed their single-source thresholds. With the incorporation of *Mitigation Measure AQ-1 and AQ-2*, the mitigated cancer risk would no longer exceed its BAAQMD single-source significance threshold. In addition, the combined unmitigated cancer risk, $PM_{2.5}$ concentration, and HI values would not exceed their respective cumulative thresholds.

Table 7. Cumulative Community Risk Impacts at the Project MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts				
Total/Maximum Project Impact	Unmitigated	**18.03 (infant)**	0.28	0.01
	Mitigated	2.51 (infant)	0.11	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated	*No*	*No*	*No*
Cumulative Impacts				
Stevens Creek Blvd, ADT 25,568		0.50	0.05	<0.01
Kiely Blvd, ADT 14,794		0.07	<0.01	<0.01
Stevens Creek Union (Facility ID # 112372, Gas Station), MEI at +1,000 feet		0.28	--	<0.01
Combined Sources	Unmitigated	18.88	<0.34	<0.04
	Mitigated	3.36	<0.17	<0.04
BAAQMD Cumulative Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*

Mitigation: Implement Mitigation Measures AQ-1 and AQ-2

Effectiveness of Mitigation Measure AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with the implementation of Mitigation Measures AQ-1 and AQ-2, assuming that all equipment met U.S. EPA Tier 4 interim engines standards and BAAQMD BMPs for construction were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 86 percent to 2.51 chances per million. A plan that reduces DPM emissions by 50 percent would reduce cancer risk to about 9.02 chances per million, below the BAAQMD single-source significance threshold.

Non-CEQA: On-Site Community 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 for new residents. A health risk assessment was completed to determine the impacts existing TAC sources would have on the new proposed sensitive receptors (residents) that that project would introduce. The same TAC sources identified above were used in this health risk assessment.[28]

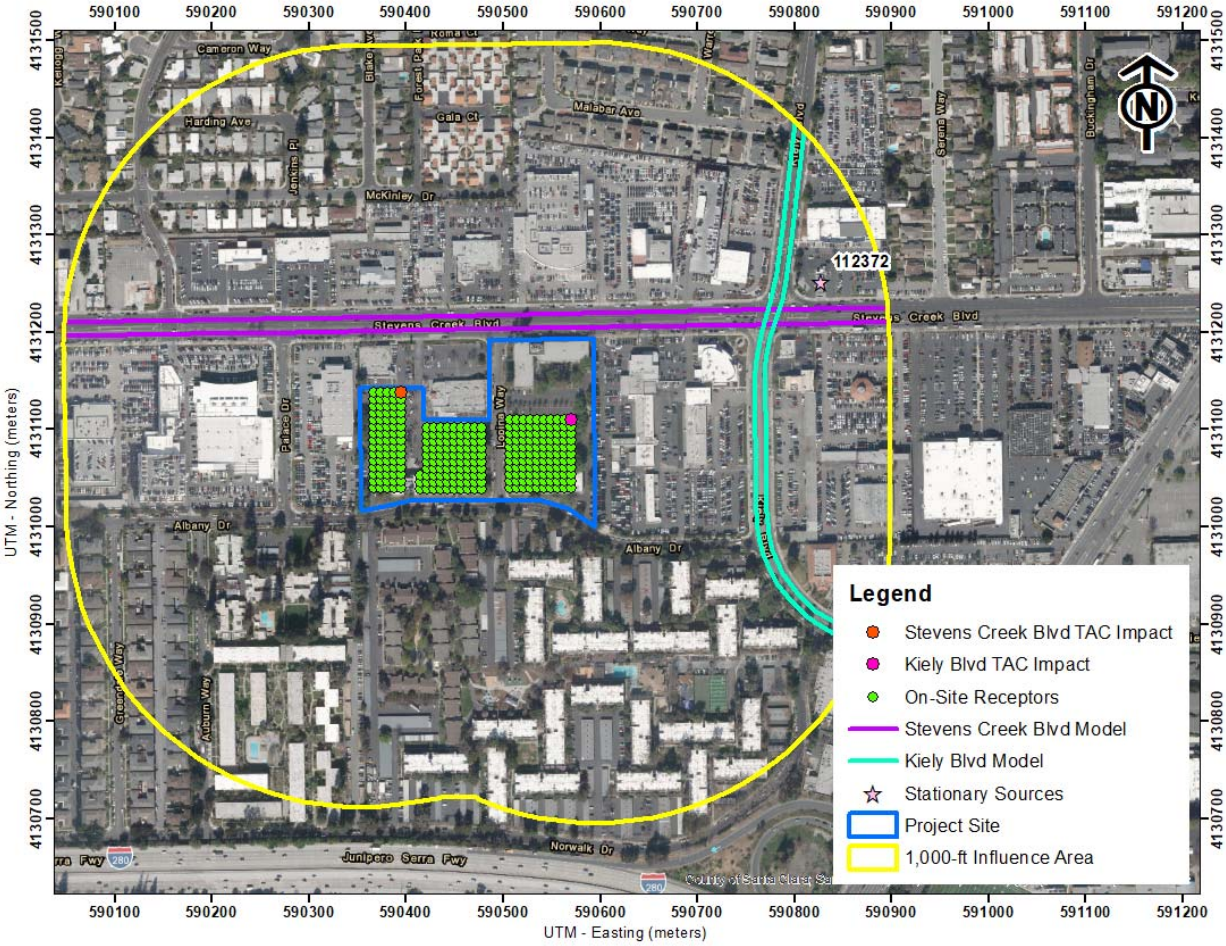
Local Roadways – Stevens Creek Boulevard and Kiely Boulevard

The roadway analysis for the project residents was conducted in the same manner as described above for the off-site MEI. However, year 2026 (operational year) emission factors were conservatively assumed as being representative of future conditions, instead of 2023 (construction start year). An analysis based on 2026 resulted in an increase of ADT on Stevens Creek Boulevard and Kiely Boulevard to 26,306 and 15,221 vehicles, respectively. On-site receptors were placed throughout the project area and were spaced every 23 feet (7 meters). Residences would be located on the second floor and higher of Building A and the third floor and higher of Buildings B and C. Roadway impacts were modeled at receptor heights of 13 feet (4 meters), 25 feet (7.6 meters), and 36 feet (11 meters) representing sensitive receptors on the second and third floors of Buildings A and the third and fourth floors of Buildings B and C (first and second residential levels of each building). Project sensitive receptors higher than the third/fourth floors would have roadway impacts less than those on the third/fourth floors. The portions of Stevens Creek Boulevard and Kiely Boulevard included in the modeling are shown in Figure 4 along with the on-site receptor locations where impacts were modeled.

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 buildings for 24 hours per day for 350 days per year. The highest impacts from Stevens Creek Boulevard occurred at the second-floor receptor of the unit in the northeast corner of Building A, closest to the roadway. The highest impacts from Kiely Boulevard occurred at the third-floor receptor of the unit in the northeast corner of Building C, closest to the roadway. Cancer risks associated with the roadways are greatest closest to the respective roadways and decrease with distance from the roads. The roadways' community risk impacts at the project site are shown in Table 8. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5.*

[28] 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 existing environment on a project are excluded from CEQA.

Figure 4. Project Site, On-Site Residential Receptors, Roadway Segments Evaluated, and Locations of Maximum Roadway TAC Impacts



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 MEI. Table 8 shows the health risk assessment results from the stationary sources.

Cumulative Community Health Risk at Project Site

Community risk impacts from the combined sources upon the project site are reported in Table 8. The TAC sources are compared against the BAAQMD single-source threshold and then combined and compared against the BAAQMD cumulative-source threshold. As shown, the maximum cancer risk, annual $PM_{2.5}$ concentrations, and HI from the nearby TAC sources do not exceed their single-source or cumulative-source thresholds.

Table 8. Impacts from Combined Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Stevens Creek Blvd, ADT 26,306	1.38	0.15	<0.01
Kiely Blvd, ADT 15,221	0.23	0.02	<0.01
Stevens Creek Union (Facility ID # 112372, Gas Station), Project Site at 700 feet	0.50	--	<0.01
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold?	*No*	*No*	*No*
Cumulative Total	2.11	0.17	<0.03
BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	*No*	*No*	*No*

Supporting Documentation

Attachment 1 is the methodology used to compute community 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. The operational outputs for existing uses are also included in this attachment as 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 community risk calculations, modeling results, and health risk calculations from sources affecting the construction/project MEI and new on-site sensitive 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.[29] 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.[30] 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.[31] 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.

[29] 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.
[30] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[31] 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:

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

Where:

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

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

Where:

C_{air} = concentration in air ($\mu g/m^3$)
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 →	3rd 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) 80th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95th 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 ($\mu g/m^3$).

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 community 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: 4300 Stevens Creek Blvd

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size
580 Dwelling Units
9.22 total project acres disturbed
591849 s.f. residential
8,259 s.f. retail
s.f. office/commercial
250 room, 152903-sf other, specify: Hotel
332270 s.f. parking garage
725 spaces
s.f. parking lot
spaces

Construction Hours am to pm

Pile Driving? Y/N?

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? Y/N? __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:**	**1/3/2023**	**Total phase:**	**30**			**Overall Import/Export Volumes**
		End Date:	**2/10/2023**					
1	Concrete/Industrial Saws	81	0.73	8	30	8	14191	**Demolition Volume**
3	Excavators	158	0.38	8	30	8	43229	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	30	8	47424	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	**77060** square feet *or*
	Other Equipment?							**?** Hauling volume (tons)
								Any pavement demolished and hauled? **?** **tons**
	Site Preparation	**Start Date:**	**2/11/2023**	**Total phase:**	**20**			
		End Date:	**3/10/2023**					
	Graders	187	0.41			0	0	
3	Rubber Tired Dozers	247	0.4	8	20	8	47424	
4	Tractors/Loaders/Backhoes	97	0.37	8	20	8	22970	
	Other Equipment?							
	Grading / Excavation	**Start Date:**	**3/11/2023**	**Total phase:**	**45**			
		End Date:	**5/12/2023**					**Soil Hauling Volume**
2	Excavators	158	0.38	8	45	8	43229	Export volume = **8250** cubic yards?
1	Graders	187	0.41	8	45	8	27601	Import volume = **0** cubic yards?
1	Rubber Tired Dozers	247	0.4	8	45	8	35568	
2	Scrapers	367	0.48	8	45	8	126835	
2	Tractors/Loaders/Backhoes	97	0.37	8	45	8	25841	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**3/11/2023**	**Total phase:**	**45**			
		End Date:	**5/12/2023**					
1	Tractor/Loader/Backhoe	97	0.37	8	45	8	12920	
1	Excavators	158	0.38	8	45	8	21614	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**5/13/2023**	**Total phase:**	**500**			**Cement Trucks? __?__ Total Round-Trips**
		End Date:	**4/11/2025**					
1	Cranes	231	0.29	7	500	7	234465	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	89	0.2	8	500	8	213600	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	500	8	248640	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	97	0.37	7	500	7	376845	
1	Welders	46	0.45	8	500	8	82800	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**4/12/2025**	**Total phase:**	**35**			
		End Date:	**5/30/2025**					
1	Air Compressors	78	0.48	6	35	6	7862	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**5/31/2025**	**Total phase:**	**35**			
		Start Date:	**7/18/2025**					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	35	8	30576	**Asphalt? ___ cubic yards or ____ round trips?**
2	Paving Equipment	132	0.36	8	35	8	26611	
2	Rollers	80	0.38	8	35	8	17024	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	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

Traffic Consultant Trip Gen						CalEEMod Default			
Land Use		**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Apartmetns Mid Rise	DU	580	2633	2006	***3.46***	5.44	4.91	4.09
Res/Retail Internal Capture Reduction	3%		*-14*			*Rev*	***3.12***	***2.60***
Location-Based Vehicle Mode Share Reduction	13%		*-340*					
Project-Specific Trip Reduction	12%		*-273*					
Hotel	Rooms	250	1270	1105	***4.42***	8.36	8.19	5.95
Location-Based Vehicle Mode Share Reduction	13%		*-165*			*Rev*	***4.33***	***3.15***
Retail	Ksf	8.259	450	322	***38.99***	44.32	42.04	20.43
Res/Retail Internal Capture Reduction	3%		*-14*			*Rev*	***36.98***	***17.97***
Location-Based Vehicle Mode Share Reduction	13%		*-57*					
Pass-by Reduction	15%		*-57*					
Existing Land Use								
Office	Ksf	136.8	941	941	***6.88***	9.74	2.21	0.7
						Rev	***1.56***	***0.49***

			Daily		AM Peak Hour						PM Peak Hour					
			Trip		Trip	Splits		Trips			Trip	Splits		Trips		
Land Use	**Size**		**Rate**	**Trips**	**Rate**	**In**	**Out**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**In**	**Out**	**Total**
Proposed Land Uses																
Apartment[1]	580	du	4.54	2,633	0.37	23%	77%	49	166	215	0.39	61%	39%	138	88	226
Residential/Retail Internal Capture (3%)[4]				-14				-1	0	-1				-2	0	-2
Location-Based Vehicle Mode Share (13%)[5]				-340				-6	-22	-28				-18	-11	-29
Project-Specific Trip Reduction (12%)[6]				-273				-5	-17	-22				-14	-9	-23
Sub-Total Residential				*2,006*				*37*	*127*	*164*				*104*	*68*	*172*
Hotel[2]	250	rooms	5.08	1,270	0.51	52%	48%	67	61	128	0.41	56%	44%	58	45	103
Location-Based Vehicle Mode Share (13%)[5]				-165				-9	-8	-17				-8	-5	-13
Sub-Total Hotel				*1,105*				*58*	*53*	*111*				*50*	*40*	*90*
Retail[3]	8,259	s.f.	54.45	450	2.36	60%	40%	11	8	19	6.59	50%	50%	27	27	54
Residential/Retail Internal Capture (3%)[4]				-14				0	-1	-1				0	-2	-2
Location-Based Vehicle Mode Share (13%)[5]				-57				-1	-1	-2				-4	-3	-7
Pass-By Reduction (15% Daily/0% AM/30% PM)[7]				-57				0	0	0				-7	-7	-14
Sub-Total Retail				*322*				*10*	*6*	*16*				*16*	*15*	*31*
Total Gross Project Trips				***3,421***				***105***	***185***	***290***				***170***	***121***	***291***
Existing Land Uses																
Office[8]	136,800	s.f.	6.88	-941	0.60	93%	7%	-76	-6	-82	1.28	27%	73%	-48	-127	-175
Net Project Trips				**2,480**				**29**	**179**	**208**				**122**	**-6**	**116**

Notes:

All trip rates are from ITE Trip Generation Manual, 11th Edition, 2021.

1. Mid-Rise Multifamily Housing (ITE Land Use 221): average trip rates in trips per dwelling unit were used.
2. Business Hotel (ITE Land Use 312): average trip rates in trips per occupied room were used.
3. Strip Retail Plaza (Land Use 822): average trip rates were used.
4. Residential/retail internal trip reductions were applied to the project per the 2014 Santa Clara VTA TIA Guidelines.
5. A 13% reduction for the residential and hotel/retail uses were applied to the project based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for the Urban Low-Transit area.
6. A reduction was applied because the proposed residential use will be required to reduce VMT through implementing physical design strategies and/or TDM measures. The VMT mitigation measures would reduce the project VMT from 11.22 per capita (area VMT) to 9.92 per capita by 12% based on the City's VMT Evaluation Tool.
7. An average 30% pass-by trip reduction was applied to the retail PM peak-hour trips based the maximum allowable pass-by trip reduction rate in the VTA Transportation Impact Analysis Guidelines, October 2014. Hexagon assumes no pass-by trip reduction during the AM peak hour for retail uses.
8. AM and PM peak-hour trip generation rates for the existing uses are based on existing driveway counts conducted on 9/22/2016. Daily trip generate rate was estimated based on the average ratio of ITE daily to AM and PM peak-hour trip rates for office use (ITE Land Use 710).

Construction Criteria Air Pollutants - Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2023	0.27	2.63	0.12	0.11	417.63	
2024	0.19	1.76	0.08	0.08	305.52	
2025	5.14	0.63	0.03	0.03	124.94	
EMFAC						
2023	0.20	0.71	0.05	0.02	774.19	
2024	0.19	0.67	0.05	0.02	764.52	
2025	0.10	0.35	0.03	0.01	407.52	
Total Construction Emissions by Year						
2023	0.47	3.34	0.17	0.13	1191.83	
2024	0.38	2.43	0.13	0.10	1070.04	
2025	5.24	0.97	0.06	0.04	532.45	
	Total Construction Emissions					
Tons	6.10	6.74	0.37	0.27	2794.32	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2023	3.64	25.68	1.34	1.03		**260**
2024	2.91	18.58	1.02	0.74		**262**
2025	**73.82**	13.69	0.80	0.52		**142**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	80.38	57.95	3.17	2.30	0.00	
Average	18.36	20.31	1.10	0.81	0.00	664.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	5.42	1.26	2.41	0.63		
	Existing Use Emissions					
Total	1.04	0.39	0.59	0.16		
	Net Annual Operational Emissions					
Tons/year	4.37	0.87	1.82	0.48		
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**		
	Average Daily Emissions					
Pounds Per Day	23.96	4.76	9.98	2.61		
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Area	30.53	0.00		
Energy	0.00	1016.01		
Mobile	2354.05	570.82		
Waste	207.37	63.98		
Water	148.43	100.60		
TOTAL	2740.38	1751.41	0.00	0.00
Net GHG Emissions		988.97		0.00
Service Population	1821			
Per Capita Emissions		1.50		0.00

	580	units
CA DOF 2020 =	3.14	pphh

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

4300 Stevens Creek Blvd, San Jose - Unmitigated Construction, Mitigated Operation

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	725.00	Space	0.00	332,270.00	0
Hotel	250.00	Room	0.00	152,903.00	0
Apartments Mid Rise	580.00	Dwelling Unit	9.22	591,849.00	1659
Strip Mall	8.26	1000sqft	0.00	8,259.00	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/MWhr)	807.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site Plan/Traffic based land uses

Construction Phase - Defaults confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Defaults confirmed by applicant

Off-road Equipment - Defaults confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Off-road Equipment - Trenching added

Trips and VMT - 0 trips EMFAC2021 adjustment, estimated 250,000-sf asphalt demo, estimated 200,000-sf concrete for building, estimated 55,000-sf asohalt for paving

Demolition - existing building demo = 77,060-sf (applicant provided)

Grading - grading = 8,250-cy export

Vehicle Trips - Trip gen w/ reductions, retail pass-by adjusted since already incdluded in trip gen reductions

Vehicle Emission Factors - EMFAC2021 Vehicle Emission Factors Santa Clara Co 2026

Woodstoves - No Wood No Gas

Energy Use - Reach Code - no Natural gas all electric

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

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

Fleet Mix - EMFAC2021 Fleet Mix Santa Clara Co 2026

Energy Mitigation - SJCE/GHGRS 100% carbon-free electricity by 2021

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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	230.00	500.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	10.00	20.00
tblEnergyUse	NT24E	3,054.10	3,055.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24E	70.89	72.42
tblEnergyUse	T24E	1.83	1.84
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	2.34	0.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	87.00	185.60
tblFireplaces	NumberWood	98.60	0.00
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
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	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
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	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblGrading	MaterialExported	0.00	8,250.00
tblLandUse	LandUseSquareFeet	290,000.00	332,270.00
tblLandUse	LandUseSquareFeet	363,000.00	152,903.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblLandUse	LandUseSquareFeet	580,000.00	591,849.00
tblLandUse	LandUseSquareFeet	8,260.00	8,259.00
tblLandUse	LotAcreage	6.52	0.00
tblLandUse	LotAcreage	8.33	0.00
tblLandUse	LotAcreage	15.26	9.22
tblLandUse	LotAcreage	0.19	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripNumber	351.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,031.00	0.00
tblTripsAndVMT	VendorTripNumber	143.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	624.00	0.00
tblTripsAndVMT	WorkerTripNumber	125.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleEF	HHD	0.02	0.22
tblVehicleEF	HHD	0.05	0.11
tblVehicleEF	HHD	6.31	5.15
tblVehicleEF	HHD	0.41	0.73
tblVehicleEF	HHD	5.9100e-003	7.3800e-004
tblVehicleEF	HHD	1,010.86	795.67
tblVehicleEF	HHD	1,358.12	1,554.97
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.22	0.25
tblVehicleEF	HHD	5.0000e-006	8.0000e-006

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	HHD	5.31	4.01
tblVehicleEF	HHD	2.65	1.70
tblVehicleEF	HHD	2.32	2.76
tblVehicleEF	HHD	2.4220e-003	2.0130e-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	2.3170e-003	1.9190e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8910e-003	8.7830e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.43	0.32
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.4050e-003	6.9240e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.49	0.58
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.13
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	3.0000e-006	0.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDA	1.3660e-003	1.6750e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.47	0.57
tblVehicleEF	LDA	1.93	2.55
tblVehicleEF	LDA	220.20	235.10
tblVehicleEF	LDA	46.75	60.77
tblVehicleEF	LDA	3.5660e-003	3.6780e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.15	0.21
tblVehicleEF	LDA	0.04	7.1220e-003
tblVehicleEF	LDA	1.1800e-003	1.0710e-003
tblVehicleEF	LDA	1.5670e-003	1.7910e-003
tblVehicleEF	LDA	0.02	2.4930e-003
tblVehicleEF	LDA	1.0860e-003	9.8600e-004
tblVehicleEF	LDA	1.4410e-003	1.6470e-003
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	4.9090e-003	6.2070e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.16	0.25
tblVehicleEF	LDA	2.1780e-003	2.3240e-003
tblVehicleEF	LDA	4.6300e-004	6.0100e-004
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.1350e-003	9.0460e-003
tblVehicleEF	LDA	0.03	0.19

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDA	0.18	0.28
tblVehicleEF	LDT1	2.7310e-003	5.0100e-003
tblVehicleEF	LDT1	0.05	0.09
tblVehicleEF	LDT1	0.71	1.21
tblVehicleEF	LDT1	2.08	4.52
tblVehicleEF	LDT1	264.87	316.42
tblVehicleEF	LDT1	56.84	82.70
tblVehicleEF	LDT1	4.8810e-003	7.9710e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	0.34
tblVehicleEF	LDT1	0.04	9.2110e-003
tblVehicleEF	LDT1	1.4310e-003	1.7060e-003
tblVehicleEF	LDT1	1.8820e-003	2.6150e-003
tblVehicleEF	LDT1	0.02	3.2240e-003
tblVehicleEF	LDT1	1.3170e-003	1.5700e-003
tblVehicleEF	LDT1	1.7300e-003	2.4040e-003
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.22	0.46
tblVehicleEF	LDT1	2.6210e-003	3.1280e-003
tblVehicleEF	LDT1	5.6300e-004	8.1800e-004
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.02	0.03

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.24	0.50
tblVehicleEF	LDT2	2.4210e-003	2.4020e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	2.52	3.24
tblVehicleEF	LDT2	280.92	326.78
tblVehicleEF	LDT2	60.84	83.29
tblVehicleEF	LDT2	4.9510e-003	5.3470e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.21	0.29
tblVehicleEF	LDT2	0.04	8.8560e-003
tblVehicleEF	LDT2	1.2560e-003	1.2430e-003
tblVehicleEF	LDT2	1.6140e-003	2.0020e-003
tblVehicleEF	LDT2	0.02	3.1000e-003
tblVehicleEF	LDT2	1.1560e-003	1.1440e-003
tblVehicleEF	LDT2	1.4840e-003	1.8410e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.5280e-003	9.2320e-003
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.24	0.33
tblVehicleEF	LDT2	2.7790e-003	3.2300e-003
tblVehicleEF	LDT2	6.0200e-004	8.2300e-004
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.27	0.36
tblVehicleEF	LHD1	4.6670e-003	5.0240e-003
tblVehicleEF	LHD1	6.7660e-003	6.5110e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.61	0.77
tblVehicleEF	LHD1	0.99	2.16
tblVehicleEF	LHD1	8.66	8.48
tblVehicleEF	LHD1	749.59	747.67
tblVehicleEF	LHD1	11.02	17.34
tblVehicleEF	LHD1	7.4200e-004	6.3000e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.50	0.52
tblVehicleEF	LHD1	0.27	0.40
tblVehicleEF	LHD1	8.7200e-004	6.8700e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8310e-003	9.4180e-003
tblVehicleEF	LHD1	8.5970e-003	0.01
tblVehicleEF	LHD1	2.3200e-004	1.9000e-004
tblVehicleEF	LHD1	8.3400e-004	6.5700e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4580e-003	2.3550e-003
tblVehicleEF	LHD1	8.1790e-003	0.01
tblVehicleEF	LHD1	2.1300e-004	1.7400e-004
tblVehicleEF	LHD1	1.7170e-003	0.12

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.4000e-005	8.3000e-005
tblVehicleEF	LHD1	7.3150e-003	7.3000e-003
tblVehicleEF	LHD1	1.0900e-004	1.7100e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.10	0.09
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.11
tblVehicleEF	LHD2	2.8270e-003	2.9010e-003
tblVehicleEF	LHD2	6.0420e-003	5.9100e-003
tblVehicleEF	LHD2	6.5340e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.54	0.49
tblVehicleEF	LHD2	0.55	1.18
tblVehicleEF	LHD2	13.60	13.61
tblVehicleEF	LHD2	727.00	794.48
tblVehicleEF	LHD2	7.15	9.38
tblVehicleEF	LHD2	1.7170e-003	1.6800e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LHD2	0.60	0.73
tblVehicleEF	LHD2	0.15	0.22
tblVehicleEF	LHD2	1.4660e-003	1.4060e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1700e-004	8.1000e-005
tblVehicleEF	LHD2	1.4020e-003	1.3460e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7000e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0800e-004	7.5000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	7.0160e-003	7.6510e-003
tblVehicleEF	LHD2	7.1000e-005	9.3000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.15

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MCY	0.25	0.17
tblVehicleEF	MCY	18.17	11.99
tblVehicleEF	MCY	9.11	7.93
tblVehicleEF	MCY	209.94	186.84
tblVehicleEF	MCY	60.17	46.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.3810e-003
tblVehicleEF	MCY	1.14	0.55
tblVehicleEF	MCY	0.27	0.12
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0610e-003	1.9450e-003
tblVehicleEF	MCY	2.9290e-003	3.4700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9240e-003	1.8180e-003
tblVehicleEF	MCY	2.7480e-003	3.2560e-003
tblVehicleEF	MCY	0.90	3.85
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.16	0.99
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	1.91	1.27
tblVehicleEF	MCY	2.0780e-003	1.8470e-003
tblVehicleEF	MCY	5.9500e-004	4.5800e-004
tblVehicleEF	MCY	0.90	0.09
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.70	1.20
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	2.08	1.38

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MDV	2.6580e-003	2.9620e-003
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.67	0.81
tblVehicleEF	MDV	2.67	3.40
tblVehicleEF	MDV	339.08	392.60
tblVehicleEF	MDV	72.17	99.29
tblVehicleEF	MDV	6.5120e-003	6.9830e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.24	0.35
tblVehicleEF	MDV	0.04	8.9510e-003
tblVehicleEF	MDV	1.3050e-003	1.2470e-003
tblVehicleEF	MDV	1.6620e-003	1.9840e-003
tblVehicleEF	MDV	0.02	3.1330e-003
tblVehicleEF	MDV	1.2040e-003	1.1490e-003
tblVehicleEF	MDV	1.5280e-003	1.8240e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.28	0.41
tblVehicleEF	MDV	3.3510e-003	3.8790e-003
tblVehicleEF	MDV	7.1400e-004	9.8200e-004
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.24

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MH	7.6660e-003	9.9190e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.68	0.93
tblVehicleEF	MH	1.87	2.26
tblVehicleEF	MH	1,445.75	1,674.32
tblVehicleEF	MH	17.15	21.62
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.21	1.44
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	2.4000e-004	2.8100e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2870e-003	3.3150e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.2100e-004	2.5800e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7000e-004	2.1400e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.6600e-003	0.01
tblVehicleEF	MHD	1.3680e-003	9.5250e-003
tblVehicleEF	MHD	8.6830e-003	7.9190e-003
tblVehicleEF	MHD	0.40	0.66
tblVehicleEF	MHD	0.19	0.26
tblVehicleEF	MHD	0.97	0.93
tblVehicleEF	MHD	69.63	156.70
tblVehicleEF	MHD	1,051.19	1,196.53
tblVehicleEF	MHD	8.85	7.91
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	7.3550e-003	5.6890e-003
tblVehicleEF	MHD	0.38	0.84
tblVehicleEF	MHD	1.45	0.91
tblVehicleEF	MHD	1.70	1.39
tblVehicleEF	MHD	2.7700e-004	1.4450e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	9.6350e-003
tblVehicleEF	MHD	1.1200e-004	9.6000e-005
tblVehicleEF	MHD	2.6500e-004	1.3820e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	9.2100e-003
tblVehicleEF	MHD	1.0300e-004	8.9000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.6100e-004	1.4520e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.8000e-005	7.8000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	7.0720e-003	7.5520e-003
tblVehicleEF	OBUS	2.9940e-003	9.8650e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.61	0.53
tblVehicleEF	OBUS	0.35	0.40
tblVehicleEF	OBUS	1.73	1.78
tblVehicleEF	OBUS	95.34	88.16
tblVehicleEF	OBUS	1,283.24	1,344.05
tblVehicleEF	OBUS	14.49	14.24
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.40	0.36
tblVehicleEF	OBUS	1.45	0.93

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	OBUS	1.11	0.99
tblVehicleEF	OBUS	1.3100e-004	3.9000e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.5500e-003	0.01
tblVehicleEF	OBUS	1.4900e-004	1.2900e-004
tblVehicleEF	OBUS	1.2600e-004	3.7300e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.2100e-003	0.01
tblVehicleEF	OBUS	1.3700e-004	1.1800e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.08	0.09
tblVehicleEF	OBUS	9.0500e-004	8.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.4300e-004	1.4100e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.4710e-003	0.09
tblVehicleEF	SBUS	5.3640e-003	4.9930e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	SBUS	2.48	1.73
tblVehicleEF	SBUS	0.45	0.84
tblVehicleEF	SBUS	0.76	0.68
tblVehicleEF	SBUS	344.98	188.59
tblVehicleEF	SBUS	1,025.26	1,007.35
tblVehicleEF	SBUS	4.41	3.84
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.13	0.12
tblVehicleEF	SBUS	5.3260e-003	4.5020e-003
tblVehicleEF	SBUS	3.24	1.31
tblVehicleEF	SBUS	4.17	2.24
tblVehicleEF	SBUS	0.95	0.50
tblVehicleEF	SBUS	3.0570e-003	1.1130e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.4000e-005	4.2000e-005
tblVehicleEF	SBUS	2.9250e-003	1.0640e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7030e-003	2.6360e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.0000e-005	3.9000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.27	0.19
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	SBUS	3.2860e-003	1.7120e-003
tblVehicleEF	SBUS	9.7970e-003	9.3590e-003
tblVehicleEF	SBUS	4.4000e-005	3.8000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.39	0.31
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.74	0.53
tblVehicleEF	UBUS	1.7570e-003	3.7120e-003
tblVehicleEF	UBUS	13.20	6.31
tblVehicleEF	UBUS	0.14	0.50
tblVehicleEF	UBUS	1,654.13	1,064.85
tblVehicleEF	UBUS	1.40	3.15
tblVehicleEF	UBUS	0.28	0.16
tblVehicleEF	UBUS	1.1340e-003	6.0350e-003
tblVehicleEF	UBUS	0.71	0.29
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.13
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.1700e-003	5.5470e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9450e-003	5.3030e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	7.3620e-003	0.01
tblVehicleEF	UBUS	0.01	8.5860e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	1.78	0.60
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	8.0600e-003	0.01
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	4.91	3.12
tblVehicleTrips	ST_TR	8.19	4.33
tblVehicleTrips	ST_TR	42.04	36.98
tblVehicleTrips	SU_TR	4.09	2.60
tblVehicleTrips	SU_TR	5.95	3.15
tblVehicleTrips	SU_TR	20.43	17.97
tblVehicleTrips	WD_TR	5.44	3.46
tblVehicleTrips	WD_TR	8.36	4.42
tblVehicleTrips	WD_TR	44.32	38.99
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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2023	0.2728	2.6303	2.5719	4.7700e-003	0.4420	0.1208	0.5629	0.1891	0.1125	0.3016	0.0000	414.7456	414.7456	0.1156	0.0000	417.6348
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	5.1448	0.6254	0.8739	1.4400e-003	0.0000	0.0275	0.0275	0.0000	0.0258	0.0258	0.0000	124.1525	124.1525	0.0315	0.0000	124.9393
Maximum	**5.1448**	**2.6303**	**2.5719**	**4.7700e-003**	**0.4420**	**0.1208**	**0.5629**	**0.1891**	**0.1125**	**0.3016**	**0.0000**	**414.7456**	**414.7456**	**0.1156**	**0.0000**	**417.6348**

Mitigated Construction

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					
2023	0.0855	1.7405	3.0414	4.7700e-003	0.1989	0.0111	0.2100	0.0851	0.0111	0.0962	0.0000	414.7451	414.7451	0.1156	0.0000	417.6343
2024	0.0699	1.4295	2.3415	3.5300e-003	0.0000	0.0111	0.0111	0.0000	0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	5.1022	0.5925	0.9871	1.4400e-003	0.0000	3.81E-03	3.8100e-003	0.0000	3.8100e-003	3.8100e-003	0.0000	124.1523	124.1523	0.0315	0.0000	124.9392
Maximum	**5.1022**	**1.7405**	**3.0414**	**4.7700e-003**	**0.1989**	**0.0111**	**0.2100**	**0.0851**	**0.0111**	**0.0962**	**0.0000**	**414.7451**	**414.7451**	**0.1156**	**0.0000**	**417.6343**

	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	N20	CO2e
Percent Reduction	**6.29**	**25.00**	**-14.49**	**0.00**	**55.00**	**88.63**	**66.46**	**55.00**	**87.84**	**72.43**	**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	**1-2-2023**	**4-1-2023**	0.9654	0.5195
2	**4-2-2023**	**7-1-2023**	0.8891	0.5565
3	**7-2-2023**	**10-1-2023**	0.5243	0.3761
4	**10-2-2023**	**1-1-2024**	0.5240	0.3761
5	**1-2-2024**	**4-1-2024**	0.4847	0.3720
6	**4-2-2024**	**7-1-2024**	0.4847	0.3720
7	**7-2-2024**	**10-1-2024**	0.4901	0.3761
8	**10-2-2024**	**1-1-2025**	0.4897	0.3761
9	**1-2-2025**	**4-1-2025**	0.4448	0.3679
10	**4-2-2025**	**7-1-2025**	5.2569	5.2549
11	**7-2-2025**	**9-30-2025**	0.0577	0.0630
		Highest	5.2569	5.2549

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	3.6023	0.0697	4.3200	3.6000e-004		0.0255	0.0255		0.0255	0.0255	0.0000	30.2224	30.2224	7.2300e-003	4.2000e-004	30.5297
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1,931.5346	1,931.5346	0.0789	9.5600e-003	1,936.3564
Mobile	1.8138	1.1861	11.0569	0.0251	2.3679	0.0171	2.3850	0.5905	0.0160	0.6065	0.0000	2,318.0338	2,318.0338	0.1285	0.1101	2,354.0526
Waste						0.0000	0.0000		0.0000	0.0000	83.7033	0.0000	83.7033	4.9467	0.0000	207.3714
Water						0.0000	0.0000		0.0000	0.0000	15.8301	120.6736	136.5037	0.0594	0.0350	148.4258
Total	**5.4161**	**1.2557**	**15.3769**	**0.0255**	**2.3679**	**0.0426**	**2.4106**	**0.5905**	**0.0415**	**0.6320**	**99.5334**	**4,400.4645**	**4,499.9979**	**5.2207**	**0.1551**	**4,676.7360**

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	3.6023	0.0697	4.3200	3.6000e-004		0.0255	0.0255		0.0255	0.0255	0.0000	30.2224	30.2224	7.2300e-003	4.2000e-004	30.5297
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Mobile	1.8138	1.1861	11.0569	0.0251	2.3679	0.0171	2.3850	0.5905	0.0160	0.6065	0.0000	2,318.0338	2,318.0338	0.1285	0.1101	2,354.05
Waste						0.0000	0.0000		0.0000	0.0000	83.7033	0.0000	83.7033	4.9467	0.0000	207.3714
Water						0.0000	0.0000		0.0000	0.0000	15.8301	120.6736	136.5037	0.0594	0.0350	148.4258
Total	**5.4161**	**1.2557**	**15.3769**	**0.0255**	**2.3679**	**0.0426**	**2.4106**	**0.5905**	**0.0415**	**0.6320**	**99.5334**	**2,468.9299**	**2,568.4633**	**5.1419**	**0.1455**	**2,740.3796**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**43.89**	**42.92**	**1.51**	**6.16**	**41.40**

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	1/2/2023	2/10/2023	5	30	
2	Site Preparation	Site Preparation	2/11/2023	3/10/2023	5	20	
3	Grading	Grading	3/11/2023	5/12/2023	5	45	
4	Trenching	Trenching	3/11/2023	5/12/2023	5	45	
5	Building Construction	Building Construction	5/13/2023	4/11/2025	5	500	
6	Architectural Coating	Architectural Coating	4/12/2025	5/30/2025	5	35	
7	Paving	Paving	5/31/2025	7/18/2025	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 1,198,494; Residential Outdoor: 399,498; Non-Residential Indoor: 241,743; Non-Residential Outdoor: 80,581; Striped Parking Area:

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment 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	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	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 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0379	0.0000	0.0379	5.7400e-003	0.0000	5.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0340	0.3223	0.2947	5.8000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	50.9881	50.9881	0.0143	0.0000	51.3451
Total	**0.0340**	**0.3223**	**0.2947**	**5.8000e-004**	**0.0379**	**0.0150**	**0.0529**	**5.7400e-003**	**0.0139**	**0.0197**	**0.0000**	**50.9881**	**50.9881**	**0.0143**	**0.0000**	**51.3451**

Unmitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					0.0171	0.0000	0.0171	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7600e-003	0.2034	0.3701	5.8000e-004		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	50.9880	50.9880	0.0143	0.0000	51.3450
Total	**8.7600e-003**	**0.2034**	**0.3701**	**5.8000e-004**	**0.0171**	**9.2000e-004**	**0.0180**	**2.5800e-003**	**9.2000e-004**	**3.5000e-003**	**0.0000**	**50.9880**	**50.9880**	**0.0143**	**0.0000**	**51.3450**

Mitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.1966**	**0.0127**	**0.2092**	**0.1010**	**0.0117**	**0.1127**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7212**

Unmitigated Construction Off-Site

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9700e-003	0.1216	0.2296	3.8000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	**6.9700e-003**	**0.1216**	**0.2296**	**3.8000e-004**	**0.0885**	**6.2000e-004**	**0.0891**	**0.0455**	**6.2000e-004**	**0.0461**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7211**

Mitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2076	0.0000	0.2076	0.0823	0.0000	0.0823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	**0.0747**	**0.7766**	**0.6312**	**1.4000e-003**	**0.2076**	**0.0321**	**0.2396**	**0.0823**	**0.0295**	**0.1118**	**0.0000**	**122.7042**	**122.7042**	**0.0397**	**0.0000**	**123.6964**

Unmitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					0.0934	0.0000	0.0934	0.0370	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.4336	0.8263	1.4000e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	**0.0228**	**0.4336**	**0.8263**	**1.4000e-003**	**0.0934**	**2.2800e-003**	**0.0957**	**0.0370**	**2.2800e-003**	**0.0393**	**0.0000**	**122.7041**	**122.7041**	**0.0397**	**0.0000**	**123.6962**

Mitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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**

3.5 Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6500e-003	0.0694	0.1235	1.9000e-004		3.4100e-003	3.4100e-003		3.1400e-003	3.1400e-003	0.0000	16.3637	16.3637	5.2900e-003	0.0000	16.4960
Total	**7.6500e-003**	**0.0694**	**0.1235**	**1.9000e-004**		**3.4100e-003**	**3.4100e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**16.3637**	**16.3637**	**5.2900e-003**	**0.0000**	**16.4960**

Unmitigated Construction Off-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					
Off-Road	3.0000e-003	0.0817	0.1409	1.9000e-004		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	16.3636	16.3636	5.2900e-003	0.0000	16.4960
Total	**3.0000e-003**	**0.0817**	**0.1409**	**1.9000e-004**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**16.3636**	**16.3636**	**5.2900e-003**	**0.0000**	**16.4960**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1298	1.1868	1.3401	2.2200e-003		0.0577	0.0577		0.0543	0.0543	0.0000	191.2389	191.2389	0.0455	0.0000	192.3762
Total	**0.1298**	**1.1868**	**1.3401**	**2.2200e-003**		**0.0577**	**0.0577**		**0.0543**	**0.0543**	**0.0000**	**191.2389**	**191.2389**	**0.0455**	**0.0000**	**192.3762**

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					

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					
Off-Road	0.0440	0.9003	1.4746	2.2200e-003		6.9800e-003	6.9800e-003		6.9800e-003	6.9800e-003	0.0000	191.2387	191.2387	0.0455	0.0000	192.3760
Total	**0.0440**	**0.9003**	**1.4746**	**2.2200e-003**		**6.9800e-003**	**6.9800e-003**		**6.9800e-003**	**6.9800e-003**	**0.0000**	**191.2387**	**191.2387**	**0.0455**	**0.0000**	**192.3760**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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 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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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 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	0.0499	0.4551	0.5871	9.8000e-004		0.0193	0.0193		0.0181	0.0181	0.0000	84.6506	84.6506	0.0199	0.0000	85.1481
Total	**0.0499**	**0.4551**	**0.5871**	**9.8000e-004**		**0.0193**	**0.0193**		**0.0181**	**0.0181**	**0.0000**	**84.6506**	**84.6506**	**0.0199**	**0.0000**	**85.1481**

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**

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.0195	0.3983	0.6524	9.8000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	84.6505	84.6505	0.0199	0.0000	85.1480
Total	**0.0195**	**0.3983**	**0.6524**	**9.8000e-004**		**3.0900e-003**	**3.0900e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**84.6505**	**84.6505**	**0.0199**	**0.0000**	**85.1480**

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**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

3.7 Architectural Coating - 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					
Archit. Coating	5.0759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	**5.0789**	**0.0201**	**0.0317**	**5.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**	**0.0000**	**4.4682**	**4.4682**	**2.4000e-004**	**0.0000**	**4.4743**

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**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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					
Archit. Coating	5.0759					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	0.0186	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	**5.0769**	**0.0186**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.4000e-004**	**0.0000**	**4.4743**

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**

3.8 Paving - 2025

Unmitigated Construction On-Site

Date: 12/3/2021 11:29 AM

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0160**	**0.1502**	**0.2551**	**4.0000e-004**		**7.3200e-003**	**7.3200e-003**		**6.7400e-003**	**6.7400e-003**	**0.0000**	**35.0337**	**35.0337**	**0.0113**	**0.0000**	**35.3170**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	5.8500e-003	0.1757	0.3027	4.0000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8500e-003**	**0.1757**	**0.3027**	**4.0000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**35.0337**	**35.0337**	**0.0113**	**0.0000**	**35.3169**

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**

4.0 Operational Detail - Mobile

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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	1.8138	1.1861	11.0569	0.0251	2.3679	0.0171	2.3850	0.5905	0.0160	0.6065	0.0000	2,318.0338	2,318.0338	0.1285	0.1101	2,354.0526
Unmitigated	1.8138	1.1861	11.0569	0.0251	2.3679	0.0171	2.3850	0.5905	0.0160	0.6065	0.0000	2,318.0338	2,318.0338	0.1285	0.1101	2,354.0526

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,006.80	1,809.60	1508.00	4,405,279	4,405,279
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,105.00	1,082.50	787.50	2,007,141	2,007,141
Strip Mall	322.06	305.45	148.43	575,932	575,932
Total	3,433.86	3,197.55	2,443.93	6,988,352	6,988,352

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	60	40	0

4.4 Fleet Mix

4300 Stevens Creek Blvd, San Jose - 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	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Enclosed Parking with Elevator	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Hotel	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Strip Mall	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,931.5346	1,931.5346	0.0789	9.5600e-003	1,936.3564
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

	NaturalGas 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
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
Hotel	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
Strip Mall	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
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**

Mitigated

	NaturalGas 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
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
Hotel	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
Strip Mall	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
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**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.24394e+006	822.3891	0.0336	4.0700e-003	824.4421
Enclosed Parking with Elevator	1.80755e+006	662.4550	0.0271	3.2800e-003	664.1087
Hotel	1.13301e+006	415.2413	0.0170	2.0600e-003	416.2779
Strip Mall	85811	31.4492	1.2800e-003	1.6000e-004	31.5277
Total		**1,931.5346**	**0.0789**	**9.5700e-003**	**1,936.3564**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Hotel	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	3.6023	0.0697	4.3200	3.6000e-004		0.0255	0.0255		0.0255	0.0255	0.0000	30.2224	30.2224	7.2300e-003	4.2000e-004	30.5297
Unmitigated	3.6023	0.0697	4.3200	3.6000e-004		0.0255	0.0255		0.0255	0.0255	0.0000	30.2224	30.2224	7.2300e-003	4.2000e-004	30.5297

6.2 Area by SubCategory

Unmitigated

	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					

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Architectural Coating	0.5076					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.3400e-003	0.0200	8.5100e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.1702	23.1702	4.4000e-004	4.2000e-004	23.3079
Landscaping	0.1300	0.0496	4.3115	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0523	7.0523	6.7800e-003	0.0000	7.2218
Total	**3.6023**	**0.0697**	**4.3200**	**3.6000e-004**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**30.2224**	**30.2224**	**7.2200e-003**	**4.2000e-004**	**30.5297**

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	0.5076					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.3400e-003	0.0200	8.5100e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.1702	23.1702	4.4000e-004	4.2000e-004	23.3079
Landscaping	0.1300	0.0496	4.3115	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0523	7.0523	6.7800e-003	0.0000	7.2218
Total	**3.6023**	**0.0697**	**4.3200**	**3.6000e-004**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**30.2224**	**30.2224**	**7.2200e-003**	**4.2000e-004**	**30.5297**

7.0 Water Detail

7.1 Mitigation Measures Water

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	136.5037	0.0594	0.0350	148.4258
Unmitigated	136.5037	0.0594	0.0350	148.4258

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	37.7893 / 23.8237	118.8692	0.0503	0.0296	128.9474
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	6.34169 / 0.704632	15.7237	8.2700e-003	4.9500e-003	17.4045
Strip Mall	0.611839 / 0.374998	1.9108	8.1000e-004	4.8000e-004	2.0740
Total		**136.5037**	**0.0594**	**0.0350**	**148.4258**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	37.7893 / 23.8237	118.8692	0.0503	0.0296	128.9474
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	6.34169 / 0.704632	15.7237	8.2700e-003	4.9500e-003	17.4045
Strip Mall	0.611839 / 0.374998	1.9108	8.1000e-004	4.8000e-004	2.0740
Total		**136.5037**	**0.0594**	**0.0350**	**148.4258**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	83.7033	4.9467	0.0000	207.3714
Unmitigated	83.7033	4.9467	0.0000	207.3714

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	266.8	54.1580	3.2007	0.0000	134.1741
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Strip Mall	8.67	1.7599	0.1040	0.0000	4.3602
Total		**83.7033**	**4.9467**	**0.0000**	**207.3715**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	266.8	54.1580	3.2007	0.0000	134.1741
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Strip Mall	8.67	1.7599	0.1040	0.0000	4.3602
Total		**83.7033**	**4.9467**	**0.0000**	**207.3715**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

4300 Stevens Creek Blvd, San Jose - Mitigated Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	725.00	Space	0.00	332,270.00	0
Hotel	250.00	Room	0.00	152,903.00	0
Apartments Mid Rise	580.00	Dwelling Unit	9.22	591,849.00	1659
Strip Mall	8.26	1000sqft	0.00	8,259.00	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/MWhr)	807.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site Plan/Traffic based land uses

Construction Phase - Defaults confirmed by applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Defaults confirmed by applicant

Off-road Equipment - Defaults confirmed by applicant

Off-road Equipment -

Off-road Equipment -

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Off-road Equipment - Trenching added

Trips and VMT - 0 trips EMFAC2021 adjustment, estimated 250,000-sf asphalt demo, estimated 200,000-sf concrete for building, estimated 55,000-sf asohalt for paving

Demolition - existing building demo = 77,060-sf (applicant provided)

Grading - grading = 8,250-cy export

Vehicle Trips - Trip gen w/ reductions, retail pass-by adjusted since already incdluded in trip gen reductions

Vehicle Emission Factors - EMFAC2021 Vehicle Emission Factors Santa Clara Co 2026

Woodstoves - No Wood No Gas

Energy Use - Reach Code - no Natural gas all electric

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

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

Energy Mitigation - SJCE/GHGRS 100% carbon-free electricity by 2021

Fleet Mix - EMFAC2021 Fleet Mix Santa Clara Co 2026

Architectural Coating - At least 80% of paints have to be super-compliant VOC = effectively 20g/L interior and 30g/L exterior

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	30.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	20.00
tblArchitecturalCoating	EF_Parking	150.00	30.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	30.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	20.00
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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	230.00	500.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	10.00	20.00
tblEnergyUse	NT24E	3,054.10	3,055.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	4.75	0.00

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblEnergyUse	T24E	70.89	72.42
tblEnergyUse	T24E	1.83	1.84
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	2.34	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	87.00	185.60
tblFireplaces	NumberWood	98.60	0.00
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
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	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
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	5.2090e-003	5.8310e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-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	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblGrading	MaterialExported	0.00	8,250.00
tblLandUse	LandUseSquareFeet	290,000.00	332,270.00
tblLandUse	LandUseSquareFeet	363,000.00	152,903.00
tblLandUse	LandUseSquareFeet	580,000.00	591,849.00
tblLandUse	LandUseSquareFeet	8,260.00	8,259.00
tblLandUse	LotAcreage	6.52	0.00
tblLandUse	LotAcreage	8.33	0.00
tblLandUse	LotAcreage	15.26	9.22
tblLandUse	LotAcreage	0.19	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripNumber	351.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,031.00	0.00
tblTripsAndVMT	VendorTripNumber	143.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	624.00	0.00
tblTripsAndVMT	WorkerTripNumber	125.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleEF	HHD	0.02	0.22
tblVehicleEF	HHD	0.05	0.11
tblVehicleEF	HHD	6.31	5.15
tblVehicleEF	HHD	0.41	0.73
tblVehicleEF	HHD	5.9100e-003	7.3800e-004
tblVehicleEF	HHD	1,010.86	795.67

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	HHD	1,358.12	1,554.97
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.22	0.25
tblVehicleEF	HHD	5.0000e-006	8.0000e-006
tblVehicleEF	HHD	5.31	4.01
tblVehicleEF	HHD	2.65	1.70
tblVehicleEF	HHD	2.32	2.76
tblVehicleEF	HHD	2.4220e-003	2.0130e-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	2.3170e-003	1.9190e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8910e-003	8.7830e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.43	0.32
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.4050e-003	6.9240e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	HHD	0.49	0.58
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.13
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	1.3660e-003	1.6750e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.47	0.57
tblVehicleEF	LDA	1.93	2.55
tblVehicleEF	LDA	220.20	235.10
tblVehicleEF	LDA	46.75	60.77
tblVehicleEF	LDA	3.5660e-003	3.6780e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.15	0.21
tblVehicleEF	LDA	0.04	7.1220e-003
tblVehicleEF	LDA	1.1800e-003	1.0710e-003
tblVehicleEF	LDA	1.5670e-003	1.7910e-003
tblVehicleEF	LDA	0.02	2.4930e-003
tblVehicleEF	LDA	1.0860e-003	9.8600e-004
tblVehicleEF	LDA	1.4410e-003	1.6470e-003
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	4.9090e-003	6.2070e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.16	0.25
tblVehicleEF	LDA	2.1780e-003	2.3240e-003
tblVehicleEF	LDA	4.6300e-004	6.0100e-004

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.1350e-003	9.0460e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.18	0.28
tblVehicleEF	LDT1	2.7310e-003	5.0100e-003
tblVehicleEF	LDT1	0.05	0.09
tblVehicleEF	LDT1	0.71	1.21
tblVehicleEF	LDT1	2.08	4.52
tblVehicleEF	LDT1	264.87	316.42
tblVehicleEF	LDT1	56.84	82.70
tblVehicleEF	LDT1	4.8810e-003	7.9710e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	0.34
tblVehicleEF	LDT1	0.04	9.2110e-003
tblVehicleEF	LDT1	1.4310e-003	1.7060e-003
tblVehicleEF	LDT1	1.8820e-003	2.6150e-003
tblVehicleEF	LDT1	0.02	3.2240e-003
tblVehicleEF	LDT1	1.3170e-003	1.5700e-003
tblVehicleEF	LDT1	1.7300e-003	2.4040e-003
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.22	0.46
tblVehicleEF	LDT1	2.6210e-003	3.1280e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDT1	5.6300e-004	8.1800e-004
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.24	0.50
tblVehicleEF	LDT2	2.4210e-003	2.4020e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	2.52	3.24
tblVehicleEF	LDT2	280.92	326.78
tblVehicleEF	LDT2	60.84	83.29
tblVehicleEF	LDT2	4.9510e-003	5.3470e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.21	0.29
tblVehicleEF	LDT2	0.04	8.8560e-003
tblVehicleEF	LDT2	1.2560e-003	1.2430e-003
tblVehicleEF	LDT2	1.6140e-003	2.0020e-003
tblVehicleEF	LDT2	0.02	3.1000e-003
tblVehicleEF	LDT2	1.1560e-003	1.1440e-003
tblVehicleEF	LDT2	1.4840e-003	1.8410e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.5280e-003	9.2320e-003
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.24	0.33

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LDT2	2.7790e-003	3.2300e-003
tblVehicleEF	LDT2	6.0200e-004	8.2300e-004
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.27	0.36
tblVehicleEF	LHD1	4.6670e-003	5.0240e-003
tblVehicleEF	LHD1	6.7660e-003	6.5110e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.61	0.77
tblVehicleEF	LHD1	0.99	2.16
tblVehicleEF	LHD1	8.66	8.48
tblVehicleEF	LHD1	749.59	747.67
tblVehicleEF	LHD1	11.02	17.34
tblVehicleEF	LHD1	7.4200e-004	6.3000e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.50	0.52
tblVehicleEF	LHD1	0.27	0.40
tblVehicleEF	LHD1	8.7200e-004	6.8700e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8310e-003	9.4180e-003
tblVehicleEF	LHD1	8.5970e-003	0.01
tblVehicleEF	LHD1	2.3200e-004	1.9000e-004
tblVehicleEF	LHD1	8.3400e-004	6.5700e-004

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4580e-003	2.3550e-003
tblVehicleEF	LHD1	8.1790e-003	0.01
tblVehicleEF	LHD1	2.1300e-004	1.7400e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.4000e-005	8.3000e-005
tblVehicleEF	LHD1	7.3150e-003	7.3000e-003
tblVehicleEF	LHD1	1.0900e-004	1.7100e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.10	0.09
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.11
tblVehicleEF	LHD2	2.8270e-003	2.9010e-003
tblVehicleEF	LHD2	6.0420e-003	5.9100e-003
tblVehicleEF	LHD2	6.5340e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.54	0.49
tblVehicleEF	LHD2	0.55	1.18
tblVehicleEF	LHD2	13.60	13.61
tblVehicleEF	LHD2	727.00	794.48

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LHD2	7.15	9.38
tblVehicleEF	LHD2	1.7170e-003	1.6800e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.60	0.73
tblVehicleEF	LHD2	0.15	0.22
tblVehicleEF	LHD2	1.4660e-003	1.4060e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1700e-004	8.1000e-005
tblVehicleEF	LHD2	1.4020e-003	1.3460e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7000e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0800e-004	7.5000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	7.0160e-003	7.6510e-003
tblVehicleEF	LHD2	7.1000e-005	9.3000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.15
tblVehicleEF	MCY	0.25	0.17
tblVehicleEF	MCY	18.17	11.99
tblVehicleEF	MCY	9.11	7.93
tblVehicleEF	MCY	209.94	186.84
tblVehicleEF	MCY	60.17	46.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.3810e-003
tblVehicleEF	MCY	1.14	0.55
tblVehicleEF	MCY	0.27	0.12
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0610e-003	1.9450e-003
tblVehicleEF	MCY	2.9290e-003	3.4700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9240e-003	1.8180e-003
tblVehicleEF	MCY	2.7480e-003	3.2560e-003
tblVehicleEF	MCY	0.90	3.85
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.16	0.99
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	1.91	1.27
tblVehicleEF	MCY	2.0780e-003	1.8470e-003
tblVehicleEF	MCY	5.9500e-004	4.5800e-004
tblVehicleEF	MCY	0.90	0.09

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.70	1.20
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	2.08	1.38
tblVehicleEF	MDV	2.6580e-003	2.9620e-003
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.67	0.81
tblVehicleEF	MDV	2.67	3.40
tblVehicleEF	MDV	339.08	392.60
tblVehicleEF	MDV	72.17	99.29
tblVehicleEF	MDV	6.5120e-003	6.9830e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.24	0.35
tblVehicleEF	MDV	0.04	8.9510e-003
tblVehicleEF	MDV	1.3050e-003	1.2470e-003
tblVehicleEF	MDV	1.6620e-003	1.9840e-003
tblVehicleEF	MDV	0.02	3.1330e-003
tblVehicleEF	MDV	1.2040e-003	1.1490e-003
tblVehicleEF	MDV	1.5280e-003	1.8240e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.28	0.41
tblVehicleEF	MDV	3.3510e-003	3.8790e-003
tblVehicleEF	MDV	7.1400e-004	9.8200e-004

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MH	7.6660e-003	9.9190e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.68	0.93
tblVehicleEF	MH	1.87	2.26
tblVehicleEF	MH	1,445.75	1,674.32
tblVehicleEF	MH	17.15	21.62
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.21	1.44
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	2.4000e-004	2.8100e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2870e-003	3.3150e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.2100e-004	2.5800e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.01	0.18

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7000e-004	2.1400e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.6600e-003	0.01
tblVehicleEF	MHD	1.3680e-003	9.5250e-003
tblVehicleEF	MHD	8.6830e-003	7.9190e-003
tblVehicleEF	MHD	0.40	0.66
tblVehicleEF	MHD	0.19	0.26
tblVehicleEF	MHD	0.97	0.93
tblVehicleEF	MHD	69.63	156.70
tblVehicleEF	MHD	1,051.19	1,196.53
tblVehicleEF	MHD	8.85	7.91
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	7.3550e-003	5.6890e-003
tblVehicleEF	MHD	0.38	0.84
tblVehicleEF	MHD	1.45	0.91
tblVehicleEF	MHD	1.70	1.39
tblVehicleEF	MHD	2.7700e-004	1.4450e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	9.6350e-003
tblVehicleEF	MHD	1.1200e-004	9.6000e-005
tblVehicleEF	MHD	2.6500e-004	1.3820e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	9.2100e-003
tblVehicleEF	MHD	1.0300e-004	8.9000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.6100e-004	1.4520e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.8000e-005	7.8000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	7.0720e-003	7.5520e-003
tblVehicleEF	OBUS	2.9940e-003	9.8650e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.61	0.53
tblVehicleEF	OBUS	0.35	0.40
tblVehicleEF	OBUS	1.73	1.78
tblVehicleEF	OBUS	95.34	88.16
tblVehicleEF	OBUS	1,283.24	1,344.05
tblVehicleEF	OBUS	14.49	14.24

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.40	0.36
tblVehicleEF	OBUS	1.45	0.93
tblVehicleEF	OBUS	1.11	0.99
tblVehicleEF	OBUS	1.3100e-004	3.9000e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.5500e-003	0.01
tblVehicleEF	OBUS	1.4900e-004	1.2900e-004
tblVehicleEF	OBUS	1.2600e-004	3.7300e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.2100e-003	0.01
tblVehicleEF	OBUS	1.3700e-004	1.1800e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.08	0.09
tblVehicleEF	OBUS	9.0500e-004	8.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.4300e-004	1.4100e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.03	0.06

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.4710e-003	0.09
tblVehicleEF	SBUS	5.3640e-003	4.9930e-003
tblVehicleEF	SBUS	2.48	1.73
tblVehicleEF	SBUS	0.45	0.84
tblVehicleEF	SBUS	0.76	0.68
tblVehicleEF	SBUS	344.98	188.59
tblVehicleEF	SBUS	1,025.26	1,007.35
tblVehicleEF	SBUS	4.41	3.84
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.13	0.12
tblVehicleEF	SBUS	5.3260e-003	4.5020e-003
tblVehicleEF	SBUS	3.24	1.31
tblVehicleEF	SBUS	4.17	2.24
tblVehicleEF	SBUS	0.95	0.50
tblVehicleEF	SBUS	3.0570e-003	1.1130e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.4000e-005	4.2000e-005
tblVehicleEF	SBUS	2.9250e-003	1.0640e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7030e-003	2.6360e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.0000e-005	3.9000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	SBUS	0.27	0.19
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2860e-003	1.7120e-003
tblVehicleEF	SBUS	9.7970e-003	9.3590e-003
tblVehicleEF	SBUS	4.4000e-005	3.8000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.39	0.31
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.74	0.53
tblVehicleEF	UBUS	1.7570e-003	3.7120e-003
tblVehicleEF	UBUS	13.20	6.31
tblVehicleEF	UBUS	0.14	0.50
tblVehicleEF	UBUS	1,654.13	1,064.85
tblVehicleEF	UBUS	1.40	3.15
tblVehicleEF	UBUS	0.28	0.16
tblVehicleEF	UBUS	1.1340e-003	6.0350e-003
tblVehicleEF	UBUS	0.71	0.29
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.13
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.1700e-003	5.5470e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9450e-003	5.3030e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	7.3620e-003	0.01
tblVehicleEF	UBUS	0.01	8.5860e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	1.78	0.60
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	8.0600e-003	0.01
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	4.91	3.12
tblVehicleTrips	ST_TR	8.19	4.33
tblVehicleTrips	ST_TR	42.04	36.98
tblVehicleTrips	SU_TR	4.09	2.60
tblVehicleTrips	SU_TR	5.95	3.15
tblVehicleTrips	SU_TR	20.43	17.97
tblVehicleTrips	WD_TR	5.44	3.46
tblVehicleTrips	WD_TR	8.36	4.42
tblVehicleTrips	WD_TR	44.32	38.99

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	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
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2023	0.2728	2.6303	2.5719	4.7700e-003	0.4420	0.1208	0.5629	0.1891	0.1125	0.3016	0.0000	414.7456	414.7456	0.1156	0.0000	417.6348
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	1.0841	0.6254	0.8739	1.4400e-003	0.0000	0.0275	0.0275	0.0000	0.0258	0.0258	0.0000	124.1525	124.1525	0.0315	0.0000	124.9393
Maximum	**1.0841**	**2.6303**	**2.5719**	**4.7700e-003**	**0.4420**	**0.1208**	**0.5629**	**0.1891**	**0.1125**	**0.3016**	**0.0000**	**414.7456**	**414.7456**	**0.1156**	**0.0000**	**417.6348**

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4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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					
2023	0.0855	1.7405	3.0414	4.7700e-003	0.1989	0.0111	0.2100	0.0851	0.0111	0.0962	0.0000	414.7451	414.7451	0.1156	0.0000	417.6343
2024	0.0699	1.4295	2.3415	3.5300e-003	0.0000	0.0111	0.0111	0.0000	0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	1.0415	0.5925	0.9871	1.4400e-003	0.0000	3.81E-03	3.8100e-003	0.0000	3.8100e-003	3.8100e-003	0.0000	124.1523	124.1523	0.0315	0.0000	124.9392
Maximum	**1.0415**	**1.7405**	**3.0414**	**4.7700e-003**	**0.1989**	**0.0111**	**0.2100**	**0.0851**	**0.0111**	**0.0962**	**0.0000**	**414.7451**	**414.7451**	**0.1156**	**0.0000**	**417.6343**

	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	N20	CO2e
Percent Reduction	**22.77**	**25.00**	**-14.49**	**0.00**	**55.00**	**88.63**	**66.46**	**55.00**	**87.84**	**72.43**	**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	**1-2-2023**	**4-1-2023**	0.9654	0.5195
2	**4-2-2023**	**7-1-2023**	0.8891	0.5565
3	**7-2-2023**	**10-1-2023**	0.5243	0.3761
4	**10-2-2023**	**1-1-2024**	0.5240	0.3761
5	**1-2-2024**	**4-1-2024**	0.4847	0.3720
6	**4-2-2024**	**7-1-2024**	0.4847	0.3720
7	**7-2-2024**	**10-1-2024**	0.4901	0.3761
8	**10-2-2024**	**1-1-2025**	0.4897	0.3761

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

9	**1-2-2025**	**4-1-2025**	0.4448	0.3679
10	**4-2-2025**	**7-1-2025**	1.1962	1.1941
11	**7-2-2025**	**9-30-2025**	0.0577	0.0630
		Highest	1.1962	1.1941

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	1/2/2023	2/10/2023	5	30	
2	Site Preparation	Site Preparation	2/11/2023	3/10/2023	5	20	
3	Grading	Grading	3/11/2023	5/12/2023	5	45	
4	Trenching	Trenching	3/11/2023	5/12/2023	5	45	
5	Building Construction	Building Construction	5/13/2023	4/11/2025	5	500	
6	Architectural Coating	Architectural Coating	4/12/2025	5/30/2025	5	35	
7	Paving	Paving	5/31/2025	7/18/2025	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 1,198,494; Residential Outdoor: 399,498; Non-Residential Indoor: 241,743; Non-Residential Outdoor: 80,581; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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

Trips and VMT

Phase Name	Offroad Equipment 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	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0379	0.0000	0.0379	5.7400e-003	0.0000	5.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0340	0.3223	0.2947	5.8000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	50.9881	50.9881	0.0143	0.0000	51.3451
Total	**0.0340**	**0.3223**	**0.2947**	**5.8000e-004**	**0.0379**	**0.0150**	**0.0529**	**5.7400e-003**	**0.0139**	**0.0197**	**0.0000**	**50.9881**	**50.9881**	**0.0143**	**0.0000**	**51.3451**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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					0.0171	0.0000	0.0171	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7600e-003	0.2034	0.3701	5.8000e-004		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	50.9880	50.9880	0.0143	0.0000	51.3450
Total	**8.7600e-003**	**0.2034**	**0.3701**	**5.8000e-004**	**0.0171**	**9.2000e-004**	**0.0180**	**2.5800e-003**	**9.2000e-004**	**3.5000e-003**	**0.0000**	**50.9880**	**50.9880**	**0.0143**	**0.0000**	**51.3450**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.1966**	**0.0127**	**0.2092**	**0.1010**	**0.0117**	**0.1127**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7212**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9700e-003	0.1216	0.2296	3.8000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	**6.9700e-003**	**0.1216**	**0.2296**	**3.8000e-004**	**0.0885**	**6.2000e-004**	**0.0891**	**0.0455**	**6.2000e-004**	**0.0461**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7211**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2076	0.0000	0.2076	0.0823	0.0000	0.0823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	**0.0747**	**0.7766**	**0.6312**	**1.4000e-003**	**0.2076**	**0.0321**	**0.2396**	**0.0823**	**0.0295**	**0.1118**	**0.0000**	**122.7042**	**122.7042**	**0.0397**	**0.0000**	**123.6964**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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					0.0934	0.0000	0.0934	0.0370	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.4336	0.8263	1.4000e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	**0.0228**	**0.4336**	**0.8263**	**1.4000e-003**	**0.0934**	**2.2800e-003**	**0.0957**	**0.0370**	**2.2800e-003**	**0.0393**	**0.0000**	**122.7041**	**122.7041**	**0.0397**	**0.0000**	**123.6962**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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 Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6500e-003	0.0694	0.1235	1.9000e-004		3.4100e-003	3.4100e-003		3.1400e-003	3.1400e-003	0.0000	16.3637	16.3637	5.2900e-003	0.0000	16.4960
Total	**7.6500e-003**	**0.0694**	**0.1235**	**1.9000e-004**		**3.4100e-003**	**3.4100e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**16.3637**	**16.3637**	**5.2900e-003**	**0.0000**	**16.4960**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

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	3.0000e-003	0.0817	0.1409	1.9000e-004		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	16.3636	16.3636	5.2900e-003	0.0000	16.4960
Total	**3.0000e-003**	**0.0817**	**0.1409**	**1.9000e-004**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**16.3636**	**16.3636**	**5.2900e-003**	**0.0000**	**16.4960**

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**

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4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1298	1.1868	1.3401	2.2200e-003		0.0577	0.0577		0.0543	0.0543	0.0000	191.2389	191.2389	0.0455	0.0000	192.3762
Total	**0.1298**	**1.1868**	**1.3401**	**2.2200e-003**		**0.0577**	**0.0577**		**0.0543**	**0.0543**	**0.0000**	**191.2389**	**191.2389**	**0.0455**	**0.0000**	**192.3762**

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**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.0440	0.9003	1.4746	2.2200e-003		6.9800e-003	6.9800e-003		6.9800e-003	6.9800e-003	0.0000	191.2387	191.2387	0.0455	0.0000	192.3760
Total	**0.0440**	**0.9003**	**1.4746**	**2.2200e-003**		**6.9800e-003**	**6.9800e-003**		**6.9800e-003**	**6.9800e-003**	**0.0000**	**191.2387**	**191.2387**	**0.0455**	**0.0000**	**192.3760**

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 Building Construction - 2024

Unmitigated Construction On-Site

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.0699	1.4295	2.3415	3.5300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0699**	**1.4295**	**2.3415**	**3.5300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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 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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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	0.0499	0.4551	0.5871	9.8000e-004		0.0193	0.0193		0.0181	0.0181	0.0000	84.6506	84.6506	0.0199	0.0000	85.1481
Total	**0.0499**	**0.4551**	**0.5871**	**9.8000e-004**		**0.0193**	**0.0193**		**0.0181**	**0.0181**	**0.0000**	**84.6506**	**84.6506**	**0.0199**	**0.0000**	**85.1481**

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					

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Off-Road	0.0195	0.3983	0.6524	9.8000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	84.6505	84.6505	0.0199	0.0000	85.1480
Total	**0.0195**	**0.3983**	**0.6524**	**9.8000e-004**		**3.0900e-003**	**3.0900e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**84.6505**	**84.6505**	**0.0199**	**0.0000**	**85.1480**

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**

3.7 Architectural Coating - 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					
Archit. Coating	1.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	**1.0182**	**0.0201**	**0.0317**	**5.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**	**0.0000**	**4.4682**	**4.4682**	**2.4000e-004**	**0.0000**	**4.4743**

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	1.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Off-Road	9.5000e-004	0.0186	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	**1.0161**	**0.0186**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.4000e-004**	**0.0000**	**4.4743**

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**

3.8 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0160**	**0.1502**	**0.2551**	**4.0000e-004**		**7.3200e-003**	**7.3200e-003**		**6.7400e-003**	**6.7400e-003**	**0.0000**	**35.0337**	**35.0337**	**0.0113**	**0.0000**	**35.3170**

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	5.8500e-003	0.1757	0.3027	4.0000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8500e-003**	**0.1757**	**0.3027**	**4.0000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**35.0337**	**35.0337**	**0.0113**	**0.0000**	**35.3169**

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**

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

4300 Stevens Creek Blvd, San Jose - Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	136.80	1000sqft	3.14	136,800.00	0
Parking Lot	6.08	Acre	6.08	264,844.80	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/MWhr)	807.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Existing Land Use - Office sf from trip gen data

Construction Phase - Existing Operational only

Off-road Equipment - Existing Operational only

Grading -

Vehicle Trips - Trip gen provided

Vehicle Emission Factors - EMFAC2021 Vehicle Emission Factors Santa Clara Co 2026

Fleet Mix - EMFAC2021 Fleet Mix Santa Clara Co 2026

Energy Use - Historical energy use

Table Name	Column Name	Default Value	New Value

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	PhaseEndDate	2/10/2023	1/30/2023
tblEnergyUse	LightingElect	4.72	3.88
tblEnergyUse	LightingElect	0.88	0.35
tblEnergyUse	T24E	8.01	5.45
tblEnergyUse	T24NG	19.90	16.14
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	HHD	6.3120e-003	7.5470e-003
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	LHD2	5.2090e-003	5.8310e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MH	2.6680e-003	2.5100e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	MHD	8.0910e-003	9.4770e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	OBUS	8.8400e-004	1.0590e-003
tblFleetMix	SBUS	8.8700e-004	6.8400e-004

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblFleetMix	SBUS	8.8700e-004	6.8400e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblFleetMix	UBUS	3.6400e-004	4.1000e-004
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblVehicleEF	HHD	0.02	0.22
tblVehicleEF	HHD	0.05	0.11
tblVehicleEF	HHD	6.31	5.15
tblVehicleEF	HHD	0.41	0.73
tblVehicleEF	HHD	5.9100e-003	7.3800e-004
tblVehicleEF	HHD	1,010.86	795.67
tblVehicleEF	HHD	1,358.12	1,554.97
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.22	0.25
tblVehicleEF	HHD	5.0000e-006	8.0000e-006
tblVehicleEF	HHD	5.31	4.01
tblVehicleEF	HHD	2.65	1.70
tblVehicleEF	HHD	2.32	2.76
tblVehicleEF	HHD	2.4220e-003	2.0130e-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	2.3170e-003	1.9190e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8910e-003	8.7830e-003

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.43	0.32
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.4050e-003	6.9240e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.0600e-004
tblVehicleEF	HHD	7.9000e-005	3.4000e-005
tblVehicleEF	HHD	0.49	0.58
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.13
tblVehicleEF	HHD	3.5000e-005	3.0300e-004
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	1.3660e-003	1.6750e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.47	0.57
tblVehicleEF	LDA	1.93	2.55
tblVehicleEF	LDA	220.20	235.10
tblVehicleEF	LDA	46.75	60.77
tblVehicleEF	LDA	3.5660e-003	3.6780e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.15	0.21
tblVehicleEF	LDA	0.04	7.1220e-003

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LDA	1.1800e-003	1.0710e-003
tblVehicleEF	LDA	1.5670e-003	1.7910e-003
tblVehicleEF	LDA	0.02	2.4930e-003
tblVehicleEF	LDA	1.0860e-003	9.8600e-004
tblVehicleEF	LDA	1.4410e-003	1.6470e-003
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	4.9090e-003	6.2070e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.16	0.25
tblVehicleEF	LDA	2.1780e-003	2.3240e-003
tblVehicleEF	LDA	4.6300e-004	6.0100e-004
tblVehicleEF	LDA	0.03	0.25
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	7.1350e-003	9.0460e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.18	0.28
tblVehicleEF	LDT1	2.7310e-003	5.0100e-003
tblVehicleEF	LDT1	0.05	0.09
tblVehicleEF	LDT1	0.71	1.21
tblVehicleEF	LDT1	2.08	4.52
tblVehicleEF	LDT1	264.87	316.42
tblVehicleEF	LDT1	56.84	82.70
tblVehicleEF	LDT1	4.8810e-003	7.9710e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.19	0.34

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LDT1	0.04	9.2110e-003
tblVehicleEF	LDT1	1.4310e-003	1.7060e-003
tblVehicleEF	LDT1	1.8820e-003	2.6150e-003
tblVehicleEF	LDT1	0.02	3.2240e-003
tblVehicleEF	LDT1	1.3170e-003	1.5700e-003
tblVehicleEF	LDT1	1.7300e-003	2.4040e-003
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.22	0.46
tblVehicleEF	LDT1	2.6210e-003	3.1280e-003
tblVehicleEF	LDT1	5.6300e-004	8.1800e-004
tblVehicleEF	LDT1	0.06	0.53
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.24	0.50
tblVehicleEF	LDT2	2.4210e-003	2.4020e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	2.52	3.24
tblVehicleEF	LDT2	280.92	326.78
tblVehicleEF	LDT2	60.84	83.29
tblVehicleEF	LDT2	4.9510e-003	5.3470e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.06

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LDT2	0.21	0.29
tblVehicleEF	LDT2	0.04	8.8560e-003
tblVehicleEF	LDT2	1.2560e-003	1.2430e-003
tblVehicleEF	LDT2	1.6140e-003	2.0020e-003
tblVehicleEF	LDT2	0.02	3.1000e-003
tblVehicleEF	LDT2	1.1560e-003	1.1440e-003
tblVehicleEF	LDT2	1.4840e-003	1.8410e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	9.5280e-003	9.2320e-003
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.24	0.33
tblVehicleEF	LDT2	2.7790e-003	3.2300e-003
tblVehicleEF	LDT2	6.0200e-004	8.2300e-004
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.27	0.36
tblVehicleEF	LHD1	4.6670e-003	5.0240e-003
tblVehicleEF	LHD1	6.7660e-003	6.5110e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.61	0.77
tblVehicleEF	LHD1	0.99	2.16
tblVehicleEF	LHD1	8.66	8.48
tblVehicleEF	LHD1	749.59	747.67

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LHD1	11.02	17.34
tblVehicleEF	LHD1	7.4200e-004	6.3000e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.50	0.52
tblVehicleEF	LHD1	0.27	0.40
tblVehicleEF	LHD1	8.7200e-004	6.8700e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8310e-003	9.4180e-003
tblVehicleEF	LHD1	8.5970e-003	0.01
tblVehicleEF	LHD1	2.3200e-004	1.9000e-004
tblVehicleEF	LHD1	8.3400e-004	6.5700e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4580e-003	2.3550e-003
tblVehicleEF	LHD1	8.1790e-003	0.01
tblVehicleEF	LHD1	2.1300e-004	1.7400e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD1	8.4000e-005	8.3000e-005
tblVehicleEF	LHD1	7.3150e-003	7.3000e-003
tblVehicleEF	LHD1	1.0900e-004	1.7100e-004
tblVehicleEF	LHD1	1.7170e-003	0.12
tblVehicleEF	LHD1	0.06	0.03

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.0400e-004	0.00
tblVehicleEF	LHD1	0.10	0.09
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.11
tblVehicleEF	LHD2	2.8270e-003	2.9010e-003
tblVehicleEF	LHD2	6.0420e-003	5.9100e-003
tblVehicleEF	LHD2	6.5340e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.54	0.49
tblVehicleEF	LHD2	0.55	1.18
tblVehicleEF	LHD2	13.60	13.61
tblVehicleEF	LHD2	727.00	794.48
tblVehicleEF	LHD2	7.15	9.38
tblVehicleEF	LHD2	1.7170e-003	1.6800e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.60	0.73
tblVehicleEF	LHD2	0.15	0.22
tblVehicleEF	LHD2	1.4660e-003	1.4060e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1700e-004	8.1000e-005
tblVehicleEF	LHD2	1.4020e-003	1.3460e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7000e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	LHD2	1.0800e-004	7.5000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	7.0160e-003	7.6510e-003
tblVehicleEF	LHD2	7.1000e-005	9.3000e-005
tblVehicleEF	LHD2	8.4300e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.5700e-004	0.00
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.15
tblVehicleEF	MCY	0.25	0.17
tblVehicleEF	MCY	18.17	11.99
tblVehicleEF	MCY	9.11	7.93
tblVehicleEF	MCY	209.94	186.84
tblVehicleEF	MCY	60.17	46.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.3810e-003
tblVehicleEF	MCY	1.14	0.55
tblVehicleEF	MCY	0.27	0.12
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0610e-003	1.9450e-003

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	MCY	2.9290e-003	3.4700e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9240e-003	1.8180e-003
tblVehicleEF	MCY	2.7480e-003	3.2560e-003
tblVehicleEF	MCY	0.90	3.85
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.16	0.99
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	1.91	1.27
tblVehicleEF	MCY	2.0780e-003	1.8470e-003
tblVehicleEF	MCY	5.9500e-004	4.5800e-004
tblVehicleEF	MCY	0.90	0.09
tblVehicleEF	MCY	0.66	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.70	1.20
tblVehicleEF	MCY	0.51	3.77
tblVehicleEF	MCY	2.08	1.38
tblVehicleEF	MDV	2.6580e-003	2.9620e-003
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.67	0.81
tblVehicleEF	MDV	2.67	3.40
tblVehicleEF	MDV	339.08	392.60
tblVehicleEF	MDV	72.17	99.29
tblVehicleEF	MDV	6.5120e-003	6.9830e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.24	0.35
tblVehicleEF	MDV	0.04	8.9510e-003

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	MDV	1.3050e-003	1.2470e-003
tblVehicleEF	MDV	1.6620e-003	1.9840e-003
tblVehicleEF	MDV	0.02	3.1330e-003
tblVehicleEF	MDV	1.2040e-003	1.1490e-003
tblVehicleEF	MDV	1.5280e-003	1.8240e-003
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.28	0.41
tblVehicleEF	MDV	3.3510e-003	3.8790e-003
tblVehicleEF	MDV	7.1400e-004	9.8200e-004
tblVehicleEF	MDV	0.06	0.32
tblVehicleEF	MDV	0.12	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.24
tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MH	7.6660e-003	9.9190e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.68	0.93
tblVehicleEF	MH	1.87	2.26
tblVehicleEF	MH	1,445.75	1,674.32
tblVehicleEF	MH	17.15	21.62
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.21	1.44
tblVehicleEF	MH	0.24	0.30

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.4000e-004	2.8100e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2870e-003	3.3150e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.2100e-004	2.5800e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7000e-004	2.1400e-004
tblVehicleEF	MH	0.52	28.55
tblVehicleEF	MH	0.04	7.36
tblVehicleEF	MH	0.19	0.00
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.01	0.18
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.6600e-003	0.01
tblVehicleEF	MHD	1.3680e-003	9.5250e-003
tblVehicleEF	MHD	8.6830e-003	7.9190e-003
tblVehicleEF	MHD	0.40	0.66
tblVehicleEF	MHD	0.19	0.26
tblVehicleEF	MHD	0.97	0.93
tblVehicleEF	MHD	69.63	156.70

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	MHD	1,051.19	1,196.53
tblVehicleEF	MHD	8.85	7.91
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	7.3550e-003	5.6890e-003
tblVehicleEF	MHD	0.38	0.84
tblVehicleEF	MHD	1.45	0.91
tblVehicleEF	MHD	1.70	1.39
tblVehicleEF	MHD	2.7700e-004	1.4450e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	9.6350e-003
tblVehicleEF	MHD	1.1200e-004	9.6000e-005
tblVehicleEF	MHD	2.6500e-004	1.3820e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	9.2100e-003
tblVehicleEF	MHD	1.0300e-004	8.9000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.6100e-004	1.4520e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.8000e-005	7.8000e-005
tblVehicleEF	MHD	3.3400e-004	0.02
tblVehicleEF	MHD	0.02	5.1060e-003
tblVehicleEF	MHD	0.02	0.04

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	MHD	1.8000e-004	0.00
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	7.0720e-003	7.5520e-003
tblVehicleEF	OBUS	2.9940e-003	9.8650e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.61	0.53
tblVehicleEF	OBUS	0.35	0.40
tblVehicleEF	OBUS	1.73	1.78
tblVehicleEF	OBUS	95.34	88.16
tblVehicleEF	OBUS	1,283.24	1,344.05
tblVehicleEF	OBUS	14.49	14.24
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.40	0.36
tblVehicleEF	OBUS	1.45	0.93
tblVehicleEF	OBUS	1.11	0.99
tblVehicleEF	OBUS	1.3100e-004	3.9000e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.5500e-003	0.01
tblVehicleEF	OBUS	1.4900e-004	1.2900e-004
tblVehicleEF	OBUS	1.2600e-004	3.7300e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.2100e-003	0.01
tblVehicleEF	OBUS	1.3700e-004	1.1800e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.08	0.09
tblVehicleEF	OBUS	9.0500e-004	8.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.4300e-004	1.4100e-004
tblVehicleEF	OBUS	1.0720e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8300e-004	0.00
tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.4710e-003	0.09
tblVehicleEF	SBUS	5.3640e-003	4.9930e-003
tblVehicleEF	SBUS	2.48	1.73
tblVehicleEF	SBUS	0.45	0.84
tblVehicleEF	SBUS	0.76	0.68
tblVehicleEF	SBUS	344.98	188.59
tblVehicleEF	SBUS	1,025.26	1,007.35
tblVehicleEF	SBUS	4.41	3.84
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.13	0.12
tblVehicleEF	SBUS	5.3260e-003	4.5020e-003
tblVehicleEF	SBUS	3.24	1.31
tblVehicleEF	SBUS	4.17	2.24

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	SBUS	0.95	0.50
tblVehicleEF	SBUS	3.0570e-003	1.1130e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.4000e-005	4.2000e-005
tblVehicleEF	SBUS	2.9250e-003	1.0640e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7030e-003	2.6360e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.0000e-005	3.9000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.27	0.19
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2860e-003	1.7120e-003
tblVehicleEF	SBUS	9.7970e-003	9.3590e-003
tblVehicleEF	SBUS	4.4000e-005	3.8000e-005
tblVehicleEF	SBUS	6.4100e-004	0.03
tblVehicleEF	SBUS	6.2050e-003	8.3130e-003
tblVehicleEF	SBUS	0.39	0.31
tblVehicleEF	SBUS	2.9200e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.74	0.53

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	UBUS	1.7570e-003	3.7120e-003
tblVehicleEF	UBUS	13.20	6.31
tblVehicleEF	UBUS	0.14	0.50
tblVehicleEF	UBUS	1,654.13	1,064.85
tblVehicleEF	UBUS	1.40	3.15
tblVehicleEF	UBUS	0.28	0.16
tblVehicleEF	UBUS	1.1340e-003	6.0350e-003
tblVehicleEF	UBUS	0.71	0.29
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.13
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.1700e-003	5.5470e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9450e-003	5.3030e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	7.3620e-003	0.01
tblVehicleEF	UBUS	0.01	8.5860e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.7000e-005	0.01
tblVehicleEF	UBUS	2.5800e-004	3.7810e-003
tblVehicleEF	UBUS	1.3000e-005	0.00
tblVehicleEF	UBUS	1.78	0.60

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

tblVehicleEF	UBUS	5.2000e-005	7.9860e-003
tblVehicleEF	UBUS	8.0600e-003	0.01
tblVehicleTrips	ST_TR	2.21	1.56
tblVehicleTrips	SU_TR	0.70	0.49
tblVehicleTrips	WD_TR	9.74	6.88

2.0 Emissions Summary

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	0.6284	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.72E-03
Energy	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	1,013.0757	1,013.0757	0.0388	6.6000e-003	1,016.01
Mobile	0.4028	0.2783	2.5950	6.0900e-003	0.5768	4.1100e-003	0.5809	0.1439	3.8300e-003	0.1477	0.0000	562.3736	562.3736	0.0293	0.0259	570.8213
Waste						0.0000	0.0000		0.0000	0.0000	25.8245	0.0000	25.8245	1.5262	0.0000	63.9791
Water						0.0000	0.0000		0.0000	0.0000	7.7137	67.3323	75.0460	0.7950	0.0190	100.5957
Total	**1.0431**	**0.3869**	**2.6875**	**6.7400e-003**	**0.5768**	**0.0124**	**0.5892**	**0.1439**	**0.0121**	**0.1559**	**33.5382**	**1,642.7842**	**1,676.3224**	**2.3893**	**0.0515**	**1,751.4110**

Mitigated Operational

Date: 12/3/2021 11:25 AM

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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					
Area	0.6284	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Energy	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	1,013.0757	1,013.0757	0.0388	6.6000e-003	1,016.0123
Mobile	0.4028	0.2783	2.5950	6.0900e-003	0.5768	4.1100e-003	0.5809	0.1439	3.8300e-003	0.1477	0.0000	562.3736	562.3736	0.0293	0.0259	570.8213
Waste						0.0000	0.0000		0.0000	0.0000	25.8245	0.0000	25.8245	1.5262	0.0000	63.9791
Water						0.0000	0.0000		0.0000	0.0000	7.7137	67.3323	75.0460	0.7950	0.0190	100.5957
Total	**1.0431**	**0.3869**	**2.6875**	**6.7400e-003**	**0.5768**	**0.0124**	**0.5892**	**0.1439**	**0.0121**	**0.1559**	**33.5382**	**1,642.7842**	**1,676.3224**	**2.3893**	**0.0515**	**1,751.4110**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

Category	tons/yr										MT/yr					
Mitigated	0.4028	0.2783	2.5950	6.0900e-003	0.5768	4.1100e-003	0.5809	0.1439	3.8300e-003	0.1477	0.0000	562.3736	562.3736	0.0293	0.0259	570.8213
Unmitigated	0.4028	0.2783	2.5950	6.0900e-003	0.5768	4.1100e-003	0.5809	0.1439	3.8300e-003	0.1477	0.0000	562.3736	562.3736	0.0293	0.0259	570.8213

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	941.18	213.41	67.03	1,702,310	1,702,310
Parking Lot	0.00	0.00	0.00		
Total	941.18	213.41	67.03	1,702,310	1,702,310

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510
Parking Lot	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.000410	0.022079	0.000684	0.002510

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	894.8130	894.8130	0.0366	4.4300e-003	897.0467
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	894.8130	894.8130	0.0366	4.4300e-003	897.0467
NaturalGas Mitigated	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	118.2627	118.2627	2.2700e-003	2.1700e-003	118.9655
NaturalGas Unmitigated	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	118.2627	118.2627	2.2700e-003	2.1700e-003	118.9655

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas 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					
General Office Building	2.21616e+006	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	118.2627	118.2627	2.2700e-003	2.1700e-003	118.9655
Parking Lot	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
Total		**0.0120**	**0.1086**	**0.0913**	**6.5000e-004**		**8.2600e-003**	**8.2600e-003**		**8.2600e-003**	**8.2600e-003**	**0.0000**	**118.2627**	**118.2627**	**2.2700e-003**	**2.1700e-003**	**118.9655**

Mitigated

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

	NaturalGas 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					
General Office Building	2.21616e+006	0.0120	0.1086	0.0913	6.5000e-004		8.2600e-003	8.2600e-003		8.2600e-003	8.2600e-003	0.0000	118.2627	118.2627	2.2700e-003	2.1700e-003	118.9655
Parking Lot	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
Total		**0.0120**	**0.1086**	**0.0913**	**6.5000e-004**		**8.2600e-003**	**8.2600e-003**		**8.2600e-003**	**8.2600e-003**	**0.0000**	**118.2627**	**118.2627**	**2.2700e-003**	**2.1700e-003**	**118.9655**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.34886e+006	860.8406	0.0352	4.2600e-003	862.9896
Parking Lot	92695.7	33.9724	1.3900e-003	1.7000e-004	34.0572
Total		**894.8130**	**0.0366**	**4.4300e-003**	**897.0467**

Mitigated

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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			
General Office Building	2.34886e+006	860.8406	0.0352	4.2600e-003	862.9896
Parking Lot	92695.7	33.9724	1.3900e-003	1.7000e-004	34.0572
Total		**894.8130**	**0.0366**	**4.4300e-003**	**897.0467**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.6284	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Unmitigated	0.6284	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003

6.2 Area by SubCategory

Unmitigated

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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	0.0769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Total	**0.6284**	**1.0000e-005**	**1.3100e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5500e-003**	**2.5500e-003**	**1.0000e-005**	**0.0000**	**2.7200e-003**

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	0.0769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7200e-003
Total	**0.6284**	**1.0000e-005**	**1.3100e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5500e-003**	**2.5500e-003**	**1.0000e-005**	**0.0000**	**2.7200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	75.0460	0.7950	0.0190	100.5957
Unmitigated	75.0460	0.7950	0.0190	100.5957

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	24.314 / 14.9021	75.0460	0.7950	0.0190	100.5957
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**75.0460**	**0.7950**	**0.0190**	**100.5957**

Mitigated

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	24.314 / 14.9021	75.0460	0.7950	0.0190	100.5957
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**75.0460**	**0.7950**	**0.0190**	**100.5957**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.8245	1.5262	0.0000	63.9791
Unmitigated	25.8245	1.5262	0.0000	63.9791

8.2 Waste by Land Use

Unmitigated

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	127.22	25.8245	1.5262	0.0000	63.9791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.8245**	**1.5262**	**0.0000**	**63.9791**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	127.22	25.8245	1.5262	0.0000	63.9791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.8245**	**1.5262**	**0.0000**	**63.9791**

9.0 Operational Offroad

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

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 3: EMFAC2021 Emissions

Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
					Tons							*Metric Tons*		
Criteria Pollutants														
2023	0.2008	0.7079	2.2348	0.0080	0.5189	0.0540	0.5729	0.0781	0.0217	0.0998	754.1804	0.0359	0.0641	774.1922
2024	0.1890	0.6732	2.0939	0.0079	0.5217	0.0539	0.5756	0.0785	0.0214	0.1000	744.8976	0.0344	0.0630	764.5203
2025	0.0967	0.3464	1.0657	0.0042	0.2837	0.0291	0.3127	0.0427	0.0115	0.0541	397.1249	0.0178	0.0334	407.5156
Toxic Air Contaminants (0.5 Mile Trip Length)														
2023	0.1718	0.2271	0.7326	0.0007	0.0255	0.0034	0.0288	0.0038	0.0016	0.0054	65.1676	0.0158	0.0105	68.6828
2024	0.1631	0.2231	0.6937	0.0007	0.0256	0.0034	0.0289	0.0039	0.0015	0.0054	64.3209	0.0151	0.0103	67.7571
2025	0.0842	0.1184	0.3561	0.0004	0.0139	0.0018	0.0157	0.0021	0.0008	0.0029	34.2765	0.0078	0.0054	36.0911

CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	450	0	907	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	4860	0	18140
Site Preparation	18	0	360	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3888	0	0
Grading	20	0	900	0	1,031	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	9720	0	20620
Trenching	5	0	225	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2430	0	0
Building Construction	624	143	312000	71500	1778	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	3369600	521950	12979.4
Architectural Coating	125	0	4375	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	47250	0	0
Paving	15	0	525	0	122	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	5670	0	890.6

Number of Days Per Year					
2023	1/2/23	12/31/23	364	260	
2024	1/1/24	12/31/24	366	262	
2025	1/1/25	7/18/25	199	142	
			929	**664**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/2/2023	2/10/2023	5	30
Site Preparation	2/11/2023	3/10/2023	5	20
Grading	3/11/2023	5/12/2023	5	45
Trenching	3/11/2023	5/12/2023	5	45
Building Construction	5/13/2023	4/11/2025	5	500
Architectural Coating	4/12/2025	5/30/2025	5	35
Paving	5/31/2025	7/18/2025	5	35

CalEEMod EMFAC2021 Emission Factors Input — Year 2026

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005024	0.002901	0.014329	0.224308568	0.007552	0	0	0.077545	0
A	CH4_RUNEX	0.001675	0.00501	0.002402	0.002962	0.006511	0.00591	0.009525	0.111846137	0.009865	0.533854641	0.154451	0.090415	0.009919
A	CH4_STREX	0.056959	0.091594	0.07317	0.0841	0.020518	0.010947	0.007919	7.49827E-08	0.016116	0.003711567	0.172746	0.004993	0.025168
A	CO_IDLEX	0	0	0	0	0.193382	0.139764	0.664762	5.153655195	0.53297	0	0	1.729088	0
A	CO_RUNEX	0.573055	1.207794	0.74197	0.807087	0.767637	0.490256	0.257149	0.733099915	0.401188	6.307010922	11.99329	0.836984	0.927158
A	CO_STREX	2.554061	4.515511	3.238665	3.39519	2.163001	1.175504	0.934813	0.000737725	1.778436	0.497532984	7.931677	0.675054	2.264736
A	CO2_NBIO_IDLEX	0	0	0	0	8.476906	13.60976	156.6958	795.6699429	88.15791	0	0	188.587	0
A	CO2_NBIO_RUNEX	235.102	316.4191	326.7826	392.6003	747.6667	794.4808	1196.529	1554.973392	1344.054	1064.852599	186.8446	1007.354	1674.317
A	CO2_NBIO_STREX	60.77252	82.69943	83.28568	99.28707	17.33995	9.379616	7.914622	0.013527798	14.24203	3.148221534	46.30646	3.836494	21.6173
A	NOX_IDLEX	0	0	0	0	0.04434	0.086409	0.837392	4.013652026	0.3605	0	0	1.308491	0
A	NOX_RUNEX	0.030375	0.103204	0.056004	0.074529	0.516639	0.725632	0.906229	1.701647234	0.930849	0.294278253	0.54585	2.244119	1.44219
A	NOX_STREX	0.20795	0.337562	0.292244	0.347081	0.400976	0.21716	1.391692	2.760133946	0.991531	0.038127875	0.123182	0.502734	0.298756
A	PM10_IDLEX	0	0	0	0	0.000687	0.001406	0.001445	0.002012959	0.00039	0	0	0.001113	0
A	PM10_PMBW	0.007122	0.009211	0.008856	0.008951	0.077204	0.090087	0.045088	0.081458247	0.049896	0.125580022	0.012	0.044699	0.044944
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009418	0.010663	0.012	0.035131691	0.012	0.044105924	0.004	0.010543	0.013261
A	PM10_RUNEX	0.001071	0.001706	0.001243	0.001247	0.012107	0.020463	0.009635	0.024769283	0.014798	0.005547054	0.001945	0.011633	0.027752
A	PM10_STREX	0.001791	0.002615	0.002002	0.001984	0.00019	8.13E-05	9.63E-05	3.29375E-07	0.000129	1.21095E-05	0.00347	4.23E-05	0.000281
A	PM25_IDLEX	0	0	0	0	0.000657	0.001346	0.001382	0.001919468	0.000373	0	0	0.001064	0
A	PM25_PMBW	0.002493	0.003224	0.0031	0.003133	0.027021	0.03153	0.015781	0.028510387	0.017464	0.043953008	0.0042	0.015645	0.01573
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002355	0.002666	0.003	0.008782923	0.003	0.011026481	0.001	0.002636	0.003315
A	PM25_RUNEX	0.000986	0.00157	0.001144	0.001149	0.011546	0.019561	0.00921	0.02369428	0.014149	0.005303299	0.001818	0.011114	0.026508
A	PM25_STREX	0.001647	0.002404	0.001841	0.001824	0.000174	7.48E-05	8.86E-05	3.02848E-07	0.000118	1.11343E-05	0.003256	3.89E-05	0.000258
A	ROG_DIURN	0.254504	0.529723	0.279092	0.322903	0.116726	0.060196	0.021313	0.000106002	0.073271	0.010212124	3.854231	0.032962	28.55295
A	ROG_HTSK	0.07369	0.147578	0.075291	0.084543	0.028726	0.014862	0.005106	3.36143E-05	0.016123	0.003780717	3.558543	0.008313	7.360966
A	ROG_IDLEX	0	0	0	0	0.020461	0.015058	0.024261	0.32445582	0.04037	0	0	0.189085	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.006207	0.021876	0.009232	0.012163	0.073128	0.102722	0.027662	0.017018907	0.041494	0.059153068	0.991178	0.051281	0.070828
A	ROG_RUNLS	0.190989	0.413908	0.208399	0.244508	0.165357	0.082688	0.042018	0.000302729	0.081242	0.00798618	3.769688	0.021611	0.176029
A	ROG_STREX	0.254258	0.45831	0.332523	0.408327	0.100626	0.053154	0.043043	4.06848E-07	0.08541	0.013136414	1.267526	0.028372	0.103602
A	SO2_IDLEX	0	0	0	0	8.25E-05	0.00013	0.001452	0.006923512	0.000833	0	0	0.001712	0
A	SO2_RUNEX	0.002324	0.003128	0.00323	0.003879	0.0073	0.007651	0.011344	0.014049606	0.012819	0.008586151	0.001847	0.009359	0.016412
A	SO2_STREX	0.000601	0.000818	0.000823	0.000982	0.000171	9.27E-05	7.82E-05	1.33736E-07	0.000141	3.11234E-05	0.000458	3.79E-05	0.000214
A	TOG_DIURN	0.254504	0.529723	0.279092	0.322903	0.116726	0.060196	0.021313	0.000106002	0.073271	0.010212124	0.085098	0.032962	28.55295
A	TOG_HTSK	0.07369	0.147578	0.075291	0.084543	0.028726	0.014862	0.005106	3.36143E-05	0.016123	0.003780717	3.558543	0.008313	7.360966
A	TOG_IDLEX	0	0	0	0	0.028987	0.020219	0.041853	0.579654551	0.053441	0	0	0.308305	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.009046	0.031907	0.013457	0.017701	0.08958	0.119	0.040924	0.131035808	0.057178	0.601092032	1.200425	0.149659	0.091829
A	TOG_RUNLS	0.190989	0.413908	0.208399	0.244508	0.165357	0.082688	0.042018	0.000302729	0.081242	0.00798618	3.769688	0.021611	0.176029
A	TOG_STREX	0.27838	0.501792	0.364071	0.447067	0.110173	0.058197	0.047127	4.45447E-07	0.093513	0.01438272	1.378329	0.031064	0.113431
A	N2O_IDLEX	0	0	0	0	0.00063	0.00168	0.024186	0.128345993	0.012682	0	0	0.024778	0
A	N2O_RUNEX	0.003678	0.007971	0.005347	0.006983	0.039725	0.080555	0.153578	0.248265947	0.156351	0.163683708	0.038475	0.124	0.068939
A	N2O_STREX	0.027983	0.036165	0.034432	0.036101	0.033064	0.017628	0.005689	8.0417E-06	0.013951	0.006034849	0.007381	0.004502	0.032161

CalEEMod EMFAC2021 Fleet Mix Input — Year 2026

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Enclosed Parking with Ele\	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Hotel	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Strip Mall	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251

CalEEMod EMFAC2021 Fleet Mix Input — Year 2026

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251
Parking Lot	0.525374	0.039228	0.232277	0.130076	0.023447	0.005831	0.009477	0.007547	0.001059	0.00041	0.022079	0.000684	0.00251

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2023	HHDT	Aggregate	Aggregate	Gasoline	3.454009	114.3093	114.3093	0	69.10781	8.107874	0	1.602501	0.00493	0	0.0017	0.005	0.035266	0.005362	0	0.001849	0.02	0.100759	2306.817	0	49.81185	0.340225	0	0.00018	0.208909	0	0.045697	2.104867	0	0.000979	0.158374	1.426645	10.65375	3.071416	0	0.001072	0.158374	1.426645	10.65375	0.040468	83.0074	0	1.02738	0.022805	0	0.000492
Santa Clara	2023	HHDT	Aggregate	Aggregate	Diesel	8235.059	991289	991289	0	120860.8	1.969368	63.40488	2.849455	0.025957	0.031631	0	0.008769	0.027531	0.027131	0.033061	0	0.035077	0.078661	1656.801	12241.32	0	0.000809	0.237446	0	0.26103	1.928625	0	0.017417	5.112156	0	0	0	0	0.019828	5.819801	0	0	0	0	0.214624	0.087393	74.20136	0	0.015689	0.115918	0
Santa Clara	2023	HHDT	Aggregate	Aggregate	Electricity	6.70171	411.5054	0	411.5054	103.2044	0	0	0	0	0	0	0.00874	0.013383	0	0	0	0.03496	0.038238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	HHDT	Aggregate	Aggregate	Natural Ga	753.7366	53295.97	53295.97	0	6914.034	1.208444	13.92832	0	0.001774	0.024237	0	0.009	0.046729	0.001929	0.02636	0	0.036	0.133512	1398.51	10630.2	0	2.44811	37.44665	0	0.285095	2.167036	0	0.054572	0.572265	0	0	0	0	2.520799	38.25947	0	0	0	0	0.860105	13.78246	74.03965	0	0	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Gasoline	601938.3	22370251	22370251	0	2795479	0.047412	0	0.27189	0.001217	0	0.001992	0.002	0.002656	0.001323	0	0.002167	0.008	0.007588	282.586	0	71.87767	0.002603	0	0.076449	0.004995	0	0.034134	0.01016	0	0.353794	0.094758	0.240611	1.480552	0.014823	0	0.387359	0.094758	0.240611	1.480552	0.033781	0.787617	0	3.436611	0.002794	0	0.000711
Santa Clara	2023	LDA	Aggregate	Aggregate	Diesel	1871.125	56220.8	56220.8	0	8000.531	0.238318	0	0	0.018559	0	0	0.002	0.002698	0.019399	0	0	0.008	0.007709	234.6327	0	0	0.001413	0	0	0.036966	0	0	0.030417	0	0	0	0	0	0.034627	0	0	0	0	0	0.0031	0.342459	0	0	0.002223	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Electricity	53751.15	2268185	0	2268185	265250.1	0	0	0	0	0	0	0.002	0.001532	0	0	0	0.008	0.004377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Plug-in Hyb	15805.32	700610.9	356649.7	343961.3	65355	0.00334	0	0.11551	0.000664	0	0.002171	0.002	0.001373	0.000722	0	0.002361	0.008	0.003922	141.9339	0	66.50966	0.000457	0	0.042604	0.000605	0	0.020916	0.001444	0	0.173285	0.040642	0.036088	0.447056	0.002108	0	0.189725	0.040642	0.036088	0.447056	0.019705	0.219019	0	1.339893	0.001403	0	0.000658
Santa Clara	2023	LDT1	Aggregate	Aggregate	Gasoline	53782.25	1744480	1744480	0	239737.9	0.143293	0	0.404336	0.00185	0	0.002837	0.002	0.003239	0.002012	0	0.003085	0.008	0.009253	333.6435	0	88.48953	0.006987	0	0.112557	0.010257	0	0.039834	0.031222	0	0.583212	0.174145	0.503091	2.807011	0.045546	0	0.638542	0.174145	0.503091	2.807011	0.035775	1.553409	0	5.660037	0.003298	0	0.000875
Santa Clara	2023	LDT1	Aggregate	Aggregate	Diesel	26.04714	391.8698	391.8698	0	75.17737	1.659056	0	0	0.24041	0	0	0.002	0.003728	0.25128	0	0	0.008	0.010651	415.6155	0	0	0.013928	0	0	0.06548	0	0	0.299852	0	0	0	0	0	0.341362	0	0	0	0	0	0.0031	1.601395	0	0	0.003938	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Electricity	194.8941	7068.184	0	7068.184	916.4832	0	0	0	0	0	0	0.002	0.00154	0	0	0	0.008	0.0044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Plug-in Hyb	43.27677	2048.369	944.1579	1104.211	178.9495	0.003025	0	0.11551	0.000387	0	0.00141	0.002	0.001383	0.000421	0	0.001534	0.008	0.003951	128.5161	0	72.38136	0.000412	0	0.042439	0.000544	0	0.020762	0.001308	0	0.173285	0.024584	0.021781	0.285922	0.001909	0	0.189725	0.024584	0.021781	0.285922	0.019359	0.198314	0	1.339893	0.001271	0	0.000716
Santa Clara	2023	LDT2	Aggregate	Aggregate	Gasoline	280180.4	10140967	10140967	0	1311796	0.077207	0	0.358346	0.001265	0	0.002003	0.002	0.003125	0.001375	0	0.002179	0.008	0.008929	351.1382	0	90.07377	0.003121	0	0.087759	0.006381	0	0.038646	0.012417	0	0.410727	0.085119	0.224187	1.404898	0.018118	0	0.449694	0.085119	0.224187	1.404898	0.035545	0.896823	0	3.892097	0.003471	0	0.00089
Santa Clara	2023	LDT2	Aggregate	Aggregate	Diesel	978.4967	36936.87	36936.87	0	4673.401	0.046157	0	0	0.005431	0	0	0.002	0.003102	0.005677	0	0	0.008	0.008863	315.6668	0	0	0.00065	0	0	0.049733	0	0	0.013984	0	0	0	0	0	0.015919	0	0	0	0	0	0.0031	0.132099	0	0	0.002991	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Electricity	1105.879	38931.7	0	38931.7	5663.051	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004357	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Plug-in Hyb	1696.55	77270.66	37142.68	40127.98	7015.234	0.003154	0	0.11551	0.000504	0	0.001759	0.002	0.001378	0.000548	0	0.001913	0.008	0.003938	134.0231	0	78.93358	0.000429	0	0.042457	0.000568	0	0.020778	0.001364	0	0.173285	0.02624	0.024448	0.318232	0.00199	0	0.189725	0.02624	0.024448	0.318232	0.020144	0.206812	0	1.339893	0.001325	0	0.00078
Santa Clara	2023	LHDT1	Aggregate	Aggregate	Gasoline	19180.96	711085.5	711085.5	0	285767.8	0.197814	0.037373	0.6588	0.001595	0	0.000328	0.002	0.0273	0.001734	0	0.000356	0.008	0.078	889.7424	120.2664	25.83956	0.009485	0.115635	0.034516	0.011082	0.003012	0.051891	0.047656	0.428153	0.172233	0.050564	0.277601	2.913784	0.069539	0.62476	0.188574	0.050564	0.277601	2.913784	0.044872	1.225109	3.753425	3.080251	0.008796	0.001189	0.000255
Santa Clara	2023	LHDT1	Aggregate	Aggregate	Diesel	9807.465	384084.8	384084.8	0	123365.6	1.780633	2.029274	0	0.038253	0.026974	0	0.003	0.0273	0.039983	0.028193	0	0.012	0.078	635.427	132.908	0	0.008623	0.005098	0	0.100112	0.02094	0	0.185652	0.10976	0	0	0	0	0.211352	0.124954	0	0	0	0	0.16551	0.518876	0.909745	0	0.006021	0.001259	0
Santa Clara	2023	LHDT2	Aggregate	Aggregate	Gasoline	2494.382	90793.04	90793.04	0	37162.58	0.187016	0.036817	0.642061	0.001446	0	0.00026	0.002	0.03185	0.001572	0	0.000283	0.008	0.091	997.3845	138.7974	25.72325	0.007074	0.114568	0.033461	0.01097	0.002967	0.050452	0.033047	0.42203	0.165607	0.046993	0.25097	2.676301	0.048222	0.613826	0.181319	0.046993	0.25097	2.676301	0.044967	0.961891	3.759407	3.119312	0.00986	0.001372	0.000254
Santa Clara	2023	LHDT2	Aggregate	Aggregate	Diesel	4479.532	176769.2	176769.2	0	56346.87	1.416942	1.998258	0	0.034177	0.027026	0	0.003	0.03185	0.035723	0.028248	0	0.012	0.091	764.5039	212.1206	0	0.007824	0.005098	0	0.120448	0.03342	0	0.168448	0.10976	0	0	0	0	0.191767	0.124954	0	0	0	0	0.178982	0.44054	0.909745	0	0.007244	0.00201	0
Santa Clara	2023	MCY	Aggregate	Aggregate	Gasoline	27894.5	164894.5	164894.5	0	55788.99	0.586927	0	0.142374	0.001778	0	0.003413	0.001	0.0042	0.001899	0	0.003626	0.004	0.012	188.3093	0	49.59811	0.167622	0	0.187482	0.040223	0	0.008379	1.105923	0	1.392636	3.5601	3.745685	3.947874	1.324135	0	1.513873	3.5601	3.745685	3.947874	0.00876	13.08956	0	8.051197	0.001862	0	0.00049
Santa Clara	2023	MDV	Aggregate	Aggregate	Gasoline	153799.1	5358084	5358084	0	712433.9	0.11759	0	0.470106	0.001289	0	0.002144	0.002	0.003187	0.001402	0	0.002331	0.008	0.009106	426.0995	0	109.7064	0.004406	0	0.110292	0.008479	0	0.043081	0.018826	0	0.559259	0.101975	0.285798	1.72733	0.02744	0	0.612315	0.101975	0.285798	1.72733	0.035428	1.067328	0	4.333252	0.004212	0	0.001085
Santa Clara	2023	MDV	Aggregate	Aggregate	Diesel	2374.918	86834.44	86834.44	0	11267.05	0.053096	0	0	0.00515	0	0	0.002	0.003181	0.005383	0	0	0.008	0.00909	413.3141	0	0	0.000529	0	0	0.065118	0	0	0.011397	0	0	0	0	0	0.012975	0	0	0	0	0	0.0031	0.202592	0	0	0.003916	0	0
Santa Clara	2023	MDV	Aggregate	Aggregate	Electricity	1130.115	40073.7	0	40073.7	5799.833	0	0	0	0	0	0	0.002	0.001524	0	0	0	0.008	0.004354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	MDV	Aggregate	Aggregate	Plug-in Hyb	986.0895	41899.14	20787.35	21111.79	4077.48	0.003256	0	0.11551	0.000638	0	0.002151	0.002	0.001376	0.000693	0	0.002339	0.008	0.00393	138.3296	0	98.37574	0.000441	0	0.042261	0.000581	0	0.020595	0.001408	0	0.173285	0.02985	0.028058	0.359617	0.002054	0	0.189725	0.02985	0.028058	0.359617	0.020837	0.213457	0	1.339893	0.001368	0	0.000973
Santa Clara	2023	MH	Aggregate	Aggregate	Gasoline	2522.745	22546.87	22546.87	0	252.3754	0.479133	0	0.412521	0.001781	0	0.000428	0.003	0.015756	0.001937	0	0.000466	0.012	0.045017	1948.243	0	31.87585	0.018146	0	0.038028	0.02809	0	0.042647	0.082252	0	0.163779	13.03985	0.30297	4.773625	0.120022	0	0.179318	13.03985	0.30297	4.773625	0.044742	2.111943	0	3.629376	0.01926	0	0.000315
Santa Clara	2023	MH	Aggregate	Aggregate	Diesel	959.1578	9344.849	9344.849	0	95.91578	4.269554	0	0	0.097907	0	0	0.004	0.015675	0.102334	0	0	0.016	0.044785	1081.435	0	0	0.005704	0	0	0.17038	0	0	0.122812	0	0	0	0	0	0.139813	0	0	0	0	0	0.150005	0.410284	0	0	0.010247	0	0
Santa Clara	2023	MHDT	Aggregate	Aggregate	Gasoline	1418.703	70785.86	70785.86	0	2838541	0.562864	0.088304	0.453053	0.001386	0	0.000555	0.003	0.015756	0.001507	0	0.000603	0.012	0.045017	1792.411	536.9661	47.19918	0.018074	0.254589	0.049387	0.026381	0.007064	0.032566	0.09086	1.010025	0.279571	0.037187	0.302385	3.037923	0.132583	1.473826	0.306095	0.037187	0.302385	3.037923	0.04497	1.909686	15.08517	6.156285	0.01772	0.005308	0.000467
Santa Clara	2023	MHDT	Aggregate	Aggregate	Diesel	10273.55	431550.4	431550.4	0	122418.2	1.337342	13.57242	1.624162	0.016518	0.035742	0	0.003	0.015941	0.017265	0.037358	0	0.012	0.045546	1151.562	2263.789	0	0.001721	0.012298	0	0.181429	0.356661	0	0.037048	0.26478	0	0	0	0	0.042176	0.301431	0	0	0	0	0.209014	0.132571	7.583386	0	0.010905	0.021437	0
Santa Clara	2023	MHDT	Aggregate	Aggregate	Electricity	4.749835	101.8022	0	101.8022	59.6458	0	0	0	0	0	0	0.003	0.00799	0	0	0	0.012	0.022828	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	MHDT	Aggregate	Aggregate	Natural Ga	83.841	4047.874	4047.874	0	762.81	0.141319	6.52743	0	0.001137	0.017647	0	0.003	0.016002	0.001236	0.019193	0	0.012	0.045721	989.385	5296.533	0	0.740055	17.59163	0	0.201693	1.079733	0	0.010574	0.25135	0	0	0	0	0.755281	17.95355	0	0	0	0	1.06	2.992708	33.64344	0	0	0	0
Santa Clara	2023	OBUS	Aggregate	Aggregate	Gasoline	458.8974	20830.08	20830.08	0	9181.619	0.553081	0.064991	0.405616	0.000893	0	0.000264	0.003	0.01568	0.000972	0	0.000287	0.012	0.044799	1784.092	381.8461	31.89445	0.015808	0.194938	0.036281	0.026177	0.005253	0.030766	0.078109	0.745234	0.192301	0.034706	0.154035	2.766253	0.113977	1.087444	0.210546	0.034706	0.154035	2.766253	0.044918	1.743956	5.768375	4.071703	0.017638	0.003775	0.000315
Santa Clara	2023	OBUS	Aggregate	Aggregate	Diesel	870.4209	61645.66	61645.66	0	8910.755	1.203188	7.410097	1.541404	0.020323	0.008632	0	0.003	0.018018	0.021242	0.009022	0	0.012	0.05148	1282.538	1552.949	0	0.001991	0.020568	0	0.202064	0.244668	0	0.04286	0.442828	0	0	0	0	0.048793	0.504126	0	0	0	0	0.215865	0.153454	7.510858	0	0.012145	0.014706	0
Santa Clara	2023	OBUS	Aggregate	Aggregate	Natural Ga	6.1456	409.5466	409.5466	0	54.69584	0.219315	1.549107	0	0.000923	0.00362	0	0.003	0.016148	0.001004	0.003937	0	0.012	0.046137	1017.405	1188.285	0	0.774069	4.381267	0	0.207405	0.24224	0	0.01106	0.0626	0	0	0	0	0.789994	4.471404	0	0	0	0	1.06	3.211954	6.724204	0	0	0	0
Santa Clara	2023	SBUS	Aggregate	Aggregate	Gasoline	166.9867	8309.308	8309.308	0	667.9468	0.519317	0.925703	0.7051	0.000862	0	0.00056	0.002	0.015721	0.000937	0	0.000609	0.008	0.044917	815.0909	2602.033	58.66947	0.011871	2.46208	0.074918	0.027733	0.086224	0.064904	0.057744	10.62943	0.427061	0.112221	0.259299	1.591441	0.084259	15.51043	0.467578	0.112221	0.259299	1.591441	0.045	1.469507	82.16746	10.56434	0.008058	0.025724	0.00058
Santa Clara	2023	SBUS	Aggregate	Aggregate	Diesel	667.1185	15392.68	15392.68	0	9659.876	4.028015	22.39863	0.467155	0.020908	0.02125	0	0.003	0.015721	0.021853	0.022211	0	0.012	0.044917	1148.524	2237.814	0	0.002748	0.008083	0	0.18095	0.352568	0	0.059161	0.174017	0	0	0	0	0.06735	0.198106	0	0	0	0	0.144154	0.181489	4.581854	0	0.010876	0.021191	0
Santa Clara	2023	SBUS	Aggregate	Aggregate	Electricity	0.302373	3.510494	0	3.510494	4.378365	0	0	0	0	0	0	0.003	0.00786	0	0	0	0.012	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	SBUS	Aggregate	Aggregate	Natural Ga	23.50762	595.8705	595.8705	0	340.3903	0.587321	5.282702	0	0.003378	0.011076	0	0.003	0.015721	0.003674	0.012046	0	0.012	0.044917	1271.127	4058.811	0	3.490611	15.40242	0	0.259128	0.827415	0	0.049874	0.22007	0	0	0	0	3.562424	15.7193	0	0	0	0	1.06	11.90284	20.11199	0	0	0	0
Santa Clara	2023	UBUS	Aggregate	Aggregate	Gasoline	45.94709	4798.244	4798.244	0	183.7884	0.026807	0	0.443444	0.001143	0	0.000128	0.002	0.03185	0.001243	0	0.00014	0.008	0.091	926.2924	0	36.84613	0.002031	0	0.041715	0.004215	0	0.070149	0.005614	0	0.147842	0.038144	0.09212	0.456803	0.008192	0	0.161868	0.038144	0.09212	0.456803	0.045	0.571128	0	6.073786	0.009157	0	0.000364
Santa Clara	2023	UBUS	Aggregate	Aggregate	Diesel	436.6681	48829.71	48829.71	0	1746.672	0.386256	0	0	0.007022	0	0	0.0083	0.0385	0.00734	0	0	0.0332	0.11	1100.965	0	0	0.003215	0	0	0.173457	0	0	0.065028	0	0	0	0	0	0.078788	0	0	0	0	0	0.18785	0.079368	0	0	0.010432	0	0
Santa Clara	2023	UBUS	Aggregate	Aggregate	Electricity	5.046757	199.0027	0	199.0027	20.18703	0	0	0	0	0	0	0.009	0.01925	0	0	0	0.036	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2023	UBUS	Aggregate	Aggregate	Natural Ga	42.26114	4829.673	4829.673	0	169.0446	0.05878	0	0	0.000282	0	0	0.008182	0.0385	0.000295	0	0	0.032727	0.11	1299.127	0	0	4.245742	0	0	0.264835	0	0	0.060663	0	0	0	0	0	4.333091	0	0	0	0	0	0.97	49.04231	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUN	PM10_IDL	PM10_STR	PM10_PM	TOG_RUNEX	TOG_IDLEX	TOG_STREX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2024	HHDT	Aggregate	Aggregate	Gasoline	2.588708	115.1526	115.1526	0	51.79487	7.013725	0	1.695629	0.003612	0	0.001433	0.005	0.03384	0.003929	0	0.001559	0.02	0.096686	2166.164	0	50.04419	0.246012	0	0.000205	0.192927	0	0.049797	1.47824	0	0.001115	0.149022	1.34233	10.02547	2.157045	0	0.001221	0.149022	1.34233	10.02547	0.04274	52.51903	0	1.60109	0.021415	0	0.000495
Santa Clara	2024	HHDT	Aggregate	Aggregate	Diesel	8486.693	1001095	1001095	0	124748.4	1.894567	62.88367	2.898867	0.025674	0.03017	0	0.008877	0.027454	0.026835	0.031534	0	0.035082	0.07844	1634.1	11997.01	0	0.000777	0.23663	0	0.257453	1.890134	0	0.016732	5.094584	0	0	0	0	0.019048	5.799796	0	0	0	0	0.215084	0.082524	74.10576	0	0.015474	0.113605	0
Santa Clara	2024	HHDT	Aggregate	Aggregate	Electricity	28.33039	2794.261	0	2794.261	378.7946	0	0	0	0	0	0	0.008585	0.014055	0	0	0	0.034341	0.040158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	HHDT	Aggregate	Aggregate	Natural Ga	794.401	54591.27	54591.27	0	7249.717	1.128254	13.55515	0	0.001724	0.024776	0	0.009	0.047521	0.001875	0.026946	0	0.036	0.135775	1387.534	10583.64	0	2.344742	36.30276	0	0.282858	2.157544	0	0.050833	0.550696	0	0	0	0	2.412728	37.08609	0	0	0	0	0.85184	13.40196	74.43135	0	0	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Gasoline	600108.2	22290344	22290344	0	2786617	0.042281	0	0.257993	0.001177	0	0.001931	0.002	0.002656	0.00128	0	0.0021	0.008	0.007587	277.9403	0	70.44944	0.002338	0	0.072036	0.004672	0	0.033228	0.008937	0	0.328953	0.090491	0.230394	1.422636	0.013041	0	0.360162	0.090491	0.230394	1.422636	0.034712	0.737516	0	3.233068	0.002748	0	0.000696
Santa Clara	2024	LDA	Aggregate	Aggregate	Diesel	1750.024	51573.48	51573.48	0	7442.61	0.213181	0	0	0.016747	0	0	0.002	0.002706	0.017504	0	0	0.008	0.00773	232.7849	0	0	0.001289	0	0	0.038675	0	0	0.027749	0	0	0	0	0	0.03159	0	0	0	0	0	0.0031	0.331109	0	0	0.002206	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Electricity	57627.4	2472767	0	2472767	282733	0	0	0	0	0	0	0.002	0.001533	0	0	0	0.008	0.00438	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Plug-in Hyb	17457.1	767059.2	381568.7	385490.5	72185.1	0.003264	0	0.11551	0.000618	0	0.00207	0.002	0.001377	0.000672	0	0.002252	0.008	0.003935	138.6993	0	65.78653	0.000444	0	0.04244	0.000587	0	0.020762	0.001412	0	0.173285	0.041111	0.037292	0.447104	0.00206	0	0.189725	0.041111	0.037292	0.447104	0.019502	0.214038	0	1.339893	0.001371	0	0.00065
Santa Clara	2024	LDT1	Aggregate	Aggregate	Gasoline	52693.37	1706864	1706864	0	234793.4	0.128357	0	0.381294	0.001737	0	0.002678	0.002	0.00324	0.001889	0	0.002913	0.008	0.009258	328.9675	0	86.69483	0.006261	0	0.105365	0.009424	0	0.03869	0.027741	0	0.539321	0.165332	0.472477	2.667158	0.040475	0	0.590488	0.165332	0.472477	2.667158	0.036079	1.427621	0	5.253053	0.003252	0	0.000857
Santa Clara	2024	LDT1	Aggregate	Aggregate	Diesel	23.46233	343.9308	343.9308	0	66.44459	1.651932	0	0	0.239373	0	0	0.002	0.003724	0.250196	0	0	0.008	0.01064	415.4307	0	0	0.013862	0	0	0.065451	0	0	0.298448	0	0	0	0	0	0.339763	0	0	0	0	0	0.0031	1.593665	0	0	0.003936	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Electricity	211.0028	8008.646	0	8008.646	994.4346	0	0	0	0	0	0	0.002	0.001539	0	0	0	0.008	0.004397	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Plug-in Hyb	67.64578	3164.46	1414.302	1750.158	279.7153	0.002933	0	0.11551	0.000367	0	0.001381	0.002	0.001389	0.0004	0	0.001502	0.008	0.003967	124.6157	0	71.36186	0.000397	0	0.042219	0.000522	0	0.020556	0.001268	0	0.173285	0.024153	0.020965	0.279628	0.001851	0	0.189725	0.024153	0.020965	0.279628	0.018771	0.192305	0	1.339893	0.001232	0	0.000705
Santa Clara	2024	LDT2	Aggregate	Aggregate	Gasoline	285585.4	10322758	10322758	0	1336438	0.069091	0	0.334237	0.001227	0	0.001959	0.002	0.003127	0.001334	0	0.00213	0.008	0.008936	344.6046	0	88.12796	0.002864	0	0.082985	0.005943	0	0.037254	0.011242	0	0.384216	0.081741	0.217688	1.368189	0.016404	0	0.420668	0.081741	0.217688	1.368189	0.036359	0.842122	0	3.673764	0.003407	0	0.000871
Santa Clara	2024	LDT2	Aggregate	Aggregate	Diesel	1015.453	37944.26	37944.26	0	4835.434	0.041515	0	0	0.004813	0	0	0.002	0.003113	0.005031	0	0	0.008	0.008895	311.1925	0	0	0.000609	0	0	0.049029	0	0	0.013105	0	0	0	0	0	0.014919	0	0	0	0	0	0.0031	0.129976	0	0	0.002949	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Electricity	1597.567	55532.59	0	55532.59	8150.927	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Plug-in Hyb	2116.58	94757.71	44376.61	50381.09	8752.056	0.003073	0	0.11551	0.000467	0	0.001672	0.002	0.001383	0.000508	0	0.001819	0.008	0.003953	130.578	0	78.06	0.000416	0	0.042233	0.000547	0	0.020569	0.001329	0	0.173285	0.025949	0.023686	0.309385	0.001939	0	0.189725	0.025949	0.023686	0.309385	0.019635	0.201506	0	1.339893	0.001291	0	0.000772
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Gasoline	19314.14	722529.3	722529.3	0	287751.9	0.17374	0.036221	0.636996	0.001534	0	0.000302	0.002	0.0273	0.001668	0	0.000328	0.008	0.078	871.4559	119.0993	25.78022	0.008358	0.112945	0.032997	0.009778	0.002977	0.050968	0.041718	0.415023	0.163611	0.047402	0.263136	2.768514	0.060875	0.605601	0.179134	0.047402	0.263136	2.768514	0.044898	1.142278	3.756209	3.123927	0.008615	0.001177	0.000255
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Diesel	10107.74	398004.1	398004.1	0	127142.6	1.563015	1.92168	0	0.035058	0.026804	0	0.003	0.0273	0.036643	0.028016	0	0.012	0.078	631.4008	131.1503	0	0.008006	0.005098	0	0.099477	0.020663	0	0.172364	0.10976	0	0	0	0	0.196225	0.124954	0	0	0	0	0.177281	0.473594	0.909745	0	0.005983	0.001243	0
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Electricity	70.82836	5110.544	0	5110.544	989.4273	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Gasoline	2506.906	91452.57	91452.57	0	37349.16	0.16518	0.035604	0.621534	0.00139	0	0.000239	0.002	0.03185	0.001512	0	0.000259	0.008	0.091	980.0361	137.5922	25.51292	0.006183	0.111453	0.031983	0.009819	0.00291	0.049384	0.028613	0.40822	0.157242	0.04419	0.238167	2.558385	0.041752	0.595674	0.17216	0.04419	0.238167	2.558385	0.044971	0.899209	3.762546	3.129931	0.009689	0.00136	0.000252
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Diesel	4663.455	183558.4	183558.4	0	58660.4	1.266102	1.895403	0	0.032055	0.027	0	0.003	0.03185	0.033504	0.028221	0	0.012	0.091	756.8682	209.5618	0	0.007406	0.005098	0	0.119245	0.033017	0	0.159439	0.10976	0	0	0	0	0.18151	0.124954	0	0	0	0	0.184132	0.411861	0.909745	0	0.007172	0.001986	0
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Electricity	18.33259	1253.286	0	1253.286	242.668	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	MCY	Aggregate	Aggregate	Gasoline	28171.51	1660222.3	1660222.3	0	56343.02	0.571344	0	0.135477	0.001779	0	0.003248	0.001	0.0042	0.001902	0	0.003456	0.004	0.012	187.743	0	48.37697	0.162609	0	0.181972	0.039558	0	0.00802	1.062175	0	1.345317	3.559276	3.75283	3.900294	1.276951	0	1.462608	3.559276	3.75283	3.900294	0.008808	12.6697	0	8.002987	0.001856	0	0.000478
Santa Clara	2024	MDV	Aggregate	Aggregate	Gasoline	156642.4	5468054	5468054	0	726101.1	0.101279	0	0.42828	0.001229	0	0.002042	0.002	0.003184	0.001336	0	0.002221	0.008	0.009096	418.13	0	107.2801	0.003873	0	0.10186	0.007628	0	0.040967	0.01626	0	0.508806	0.097051	0.275722	1.677059	0.023715	0	0.557077	0.097051	0.275722	1.677059	0.036179	0.972241	0	4.022964	0.004134	0	0.001061
Santa Clara	2024	MDV	Aggregate	Aggregate	Diesel	2400.615	86292.69	86292.69	0	11318.82	0.048844	0	0	0.004909	0	0	0.002	0.003206	0.005131	0	0	0.008	0.009159	409.13	0	0	0.00051	0	0	0.064459	0	0	0.012498	0	0	0	0	0	0.012498	0	0	0	0	0	0.0031	0.201538	0	0	0.003877	0	0
Santa Clara	2024	MDV	Aggregate	Aggregate	Electricity	1678.684	58660.63	0	58660.63	8578.496	0	0	0	0	0	0	0.002	0.001525	0	0	0	0.008	0.004358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	MDV	Aggregate	Aggregate	Plug-in Hyb	1250.857	52904.03	25301.52	27602.51	5172.294	0.003138	0	0.11551	0.000561	0	0.001962	0.002	0.001382	0.00061	0	0.002134	0.008	0.003948	133.3485	0	96.65661	0.000423	0	0.042047	0.000554	0	0.020395	0.001357	0	0.173285	0.030318	0.026684	0.341695	0.00198	0	0.189725	0.030318	0.026684	0.341695	0.020087	0.205781	0	1.339893	0.001318	0	0.000956
Santa Clara	2024	MH	Aggregate	Aggregate	Gasoline	2420.57	22012.3	22012.3	0	242.1538	0.420938	0	0.419963	0.001679	0	0.000404	0.003	0.015756	0.001826	0	0.000439	0.012	0.045017	1947.501	0	31.65056	0.015478	0	0.037539	0.025731	0	0.04407	0.06827	0	0.159123	12.21143	0.286769	4.596479	0.09962	0	0.174219	12.21143	0.286769	4.596479	0.044846	1.682224	0	3.497247	0.019253	0	0.000313
Santa Clara	2024	MH	Aggregate	Aggregate	Diesel	977.3606	9498.302	9498.302	0	977.3606	4.117169	0	0	0.091772	0	0	0.004	0.015675	0.095921	0	0	0.016	0.044785	1081.931	0	0	0.005558	0	0	0.170459	0	0	0.11965	0	0	0	0	0	0.136214	0	0	0	0	0	0.155539	0.397281	0	0	0.010252	0	0
Santa Clara	2024	MHDT	Aggregate	Aggregate	Gasoline	1414.552	71600.35	71600.35	0	28302.35	0.470752	0.088485	0.440963	0.001362	0	0.000533	0.003	0.015756	0.001482	0	0.000579	0.012	0.045017	1768.687	531.8002	46.25227	0.015051	0.25808	0.047572	0.022913	0.00727	0.03271	0.074951	1.01271	0.265405	0.033945	0.276365	2.798712	0.109368	1.477744	0.290585	0.033945	0.276365	2.798712	0.04498	1.56073	15.11634	5.825814	0.017485	0.005257	0.000457
Santa Clara	2024	MHDT	Aggregate	Aggregate	Diesel	10390.53	434043.6	434043.6	0	123939	1.232824	13.14099	1.642732	0.014397	0.029902	0	0.003	0.015941	0.015048	0.031254	0	0.012	0.045546	1147.309	2248.547	0	0.001507	0.01158	0	0.180759	0.35426	0	0.032455	0.249319	0	0	0	0	0.036947	0.283831	0	0	0	0	0.210532	0.120871	7.556027	0	0.010864	0.021292	0
Santa Clara	2024	MHDT	Aggregate	Aggregate	Electricity	30.91601	1660.353	0	1660.353	407.4536	0	0	0	0	0	0	0.003	0.007956	0	0	0	0.012	0.022732	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	MHDT	Aggregate	Aggregate	Natural Ga	90.59449	4303.581	4303.581	0	827.6228	0.133415	6.499719	0	0.001179	0.018131	0	0.003	0.016007	0.001282	0.019719	0	0.012	0.045734	984.6917	5301.101	0	0.74573	17.31409	0	0.200736	1.080664	0	0.010655	0.247384	0	0	0	0	0.761072	17.6703	0	0	0	0	1.06	2.995842	34.7393	0	0	0	0
Santa Clara	2024	OBUS	Aggregate	Aggregate	Gasoline	443.1467	19894.31	19894.31	0	8866.48	0.49672	0.06506	0.408547	0.000907	0	0.000252	0.003	0.01568	0.000987	0	0.000274	0.012	0.044799	1764.001	379.4143	31.61308	0.013757	0.195733	0.03606	0.024018	0.005304	0.031028	0.067076	0.746281	0.190964	0.033873	0.154922	2.818385	0.097877	1.088971	0.209081	0.033873	0.154922	2.818385	0.044969	1.491576	5.774637	4.000641	0.017439	0.003751	0.000313
Santa Clara	2024	OBUS	Aggregate	Aggregate	Diesel	893.1376	61949.05	61949.05	0	9141.625	1.178643	7.363387	1.543157	0.019849	0.008167	0	0.003	0.018015	0.020746	0.008536	0	0.012	0.051472	1273.38	1538.564	0	0.001935	0.020479	0	0.200622	0.242401	0	0.04166	0.440905	0	0	0	0	0.047427	0.501937	0	0	0	0	0.216021	0.150181	7.500483	0	0.012058	0.014569	0
Santa Clara	2024	OBUS	Aggregate	Aggregate	Electricity	1.087481	92.50105	0	92.50105	21.75833	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	OBUS	Aggregate	Aggregate	Natural Ga	7.05737	469.3876	469.3876	0	62.81059	0.190585	1.537414	0	0.00106	0.003899	0	0.003	0.016148	0.001153	0.004241	0	0.012	0.046137	1004.237	1191.581	0	0.789796	4.236895	0	0.20472	0.242912	0	0.011285	0.060537	0	0	0	0	0.806045	4.324062	0	0	0	0	1.06	3.254325	7.353064	0	0	0	0
Santa Clara	2024	SBUS	Aggregate	Aggregate	Gasoline	172.6948	8584.866	8584.866	0	690.7791	0.50288	0.925939	0.716801	0.000864	0	0.000567	0.002	0.015721	0.000939	0	0.000616	0.008	0.044917	810.6064	2589.131	58.1367	0.011135	2.464862	0.074893	0.027101	0.086311	0.065929	0.054059	10.63288	0.426367	0.113914	0.274691	1.686167	0.078883	15.51547	0.466819	0.113914	0.274691	1.686167	0.045	1.38705	82.18841	10.36621	0.008014	0.025596	0.000575
Santa Clara	2024	SBUS	Aggregate	Aggregate	Diesel	670.5958	15345.26	15345.26	0	9710.228	3.821388	21.90481	0.482851	0.019766	0.019703	0	0.003	0.015721	0.02066	0.020594	0	0.012	0.044917	1144.18	2229	0	0.002665	0.008001	0	0.180266	0.35118	0	0.057376	0.172257	0	0	0	0	0.065318	0.196101	0	0	0	0	0.148025	0.1775	4.677792	0	0.010835	0.021107	0
Santa Clara	2024	SBUS	Aggregate	Aggregate	Electricity	2.064666	64.35501	0	64.35501	23.64639	0	0	0	0	0	0	0.002539	0.00786	0	0	0	0.010157	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	SBUS	Aggregate	Aggregate	Natural Ga	24.3995	612.0941	612.0941	0	353.3048	0.567729	5.270895	0	0.003378	0.011357	0	0.003	0.015721	0.003674	0.012352	0	0.012	0.044917	1261.305	4066.736	0	3.436672	15.25665	0	0.257125	0.829031	0	0.049103	0.217987	0	0	0	0	3.507376	15.57053	0	0	0	0	1.06	11.64901	20.74693	0	0	0	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Gasoline	46.08313	4812.451	4812.451	0	184.3325	0.027483	0	0.457232	0.001143	0	0.000128	0.002	0.03185	0.001243	0	0.00014	0.008	0.091	926.0836	0	36.94783	0.002034	0	0.043067	0.004288	0	0.071717	0.005634	0	0.152979	0.038099	0.092116	0.456438	0.008221	0	0.167492	0.038099	0.092116	0.456438	0.045	0.581148	0	6.130495	0.009155	0	0.000365
Santa Clara	2024	UBUS	Aggregate	Aggregate	Diesel	437.4745	48917.61	48917.61	0	1749.898	0.386257	0	0	0.007023	0	0	0.0083	0.0385	0.00734	0	0	0.0332	0.11	1101.14	0	0	0.003215	0	0	0.173485	0	0	0.069208	0	0	0	0	0	0.078788	0	0	0	0	0	0.187908	0.079368	0	0	0.010434	0	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Electricity	5.347565	235.0626	0	235.0626	21.39026	0	0	0	0	0	0	0.00888	0.01925	0	0	0	0.03552	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Natural Ga	42.58696	4865.187	4865.187	0	170.3478	0.058788	0	0	0.000282	0	0	0.008183	0.0385	0.000295	0	0	0.032731	0.11	1299.206	0	0	4.246059	0	0	0.264852	0	0	0.060668	0	0	0	0	0	4.333415	0	0	0	0	0	0.97	49.04786	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUI	PM10_IDLE	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2025	HHDT	Aggregate	Aggregate	Gasoline	2.330359	124.9448	124.9448	0	46.62582	5.556909	0	1.379041	0.003103	0	0.001399	0.005	0.033068	0.003375	0	0.001521	0.02	0.09448	2106.229	0	50.03138	0.207413	0	0.000226	0.167059	0	0.041557	1.222197	0	0.00123	0.140217	1.263022	9.434649	1.783427	0	0.001346	0.140217	1.263022	9.434649	0.043157	47.7242	0	2.001616	0.020822	0	0.000495
Santa Clara	2025	HHDT	Aggregate	Aggregate	Diesel	8692.575	1008964	1008964	0	127877.1	1.825194	62.42367	2.931995	0.025335	0.028938	0	0.008772	0.027421	0.02648	0.030247	0	0.035088	0.078345	1608.776	11755.34	0	0.00075	0.235891	0	0.253463	1.852058	0	0.016139	5.078674	0	0	0	0	0	0.018373	5.781684	0	0	0	0	0.215507	0.078083	74.00904	0	0.015234	0.111316	0
Santa Clara	2025	HHDT	Aggregate	Aggregate	Electricity	63.3712	6579.675	0	6579.675	825.9972	0	0	0	0	0	0	0	0.008551	0.014281	0	0	0.034206	0.040802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	HHDT	Aggregate	Aggregate	Natural Ga	832.405	55779.38	55779.38	0	7555.504	1.049864	13.18492	0	0.00168	0.025258	0	0.009	0.048303	0.001827	0.02747	0	0.036	0.138007	1375.94	10529.31	0	2.235928	35.17609	0	0.280494	2.146469	0	0.047235	0.530122	0	0	0	0	0	0.299347	35.93114	0	0	0	0	0.843784	13.01274	74.75478	0	0	0	0
Santa Clara	2025	LDA	Aggregate	Aggregate	Gasoline	598860.3	22133915	22133915	0	2780384	0.038209	0	0.245539	0.001142	0	0.00188	0.003	0.002655	0.001242	0	0.002044	0.008	0.007587	273.2075	0	69.04168	0.002117	0	0.067825	0.004408	0	0.032293	0.007947	0	0.306311	0.087189	0.224301	1.384954	0.011596	0	0.335372	0.087189	0.224301	1.384954	0.035611	0.6952	0	3.049452	0.002701	0	0.000683
Santa Clara	2025	LDA	Aggregate	Aggregate	Diesel	1620.04	46912.85	46912.85	0	6871.193	0.18842	0	0	0.015236	0	0	0.002	0.002712	0.015925	0	0	0.008	0.007748	230.5963	0	0	0.001193	0	0	0.036331	0	0	0.025693	0	0	0	0	0	0	0.02925	0	0	0	0	0	0.0031	0.319914	0	0	0.002185	0	0
Santa Clara	2025	LDA	Aggregate	Aggregate	Electricity	61443.19	2670452	0	2670452	299852.7	0	0	0	0	0	0	0.002	0.001534	0	0	0	0.008	0.004382	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	LDA	Aggregate	Aggregate	Plug-in Hyb	19037.66	825567.7	401013	424554.8	78720.74	0.003187	0	0.11551	0.000578	0	0.001985	0.002	0.001382	0.000629	0	0.002159	0.008	0.003948	135.4391	0	65.04608	0.000432	0	0.042249	0.000569	0	0.020584	0.001378	0	0.173285	0.041164	0.03735	0.440525	0.002011	0	0.189725	0.041164	0.03735	0.440525	0.019241	0.209016	0	1.339893	0.001339	0	0.000643
Santa Clara	2025	LDT1	Aggregate	Aggregate	Gasoline	51680.86	1664706	1664706	0	230186	0.115355	0	0.35972	0.001639	0	0.002543	0.002	0.002341	0.001782	0	0.002766	0.008	0.00926	324.1276	0	84.93844	0.005621	0	0.098552	0.008687	0	0.037511	0.02471	0	0.498818	0.156963	0.442299	2.52236	0.038056	0	0.546143	0.156963	0.442299	2.52236	0.036453	1.317416	0	4.886115	0.003204	0	0.00084
Santa Clara	2025	LDT1	Aggregate	Aggregate	Diesel	21.28272	302.8258	302.8258	0	59.13231	1.64381	0	0	0.238169	0	0	0.002	0.00372	0.248938	0	0	0.008	0.010628	415.1682	0	0	0.013797	0	0	0.06541	0	0	0.297038	0	0	0.338158	0	0	0	0	0	0	0	0	0	0.0031	1.585068	0	0	0.003934	0	0
Santa Clara	2025	LDT1	Aggregate	Aggregate	Electricity	234.4578	9323.704	0	9323.704	1109.796	0	0	0	0	0	0	0.002	0.001537	0	0	0	0.008	0.004392	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	LDT1	Aggregate	Aggregate	Plug-in Hyb	98.13198	4519.182	1961.286	2557.896	405.7758	0.002848	0	0.11551	0.000353	0	0.001365	0.002	0.001394	0.000383	0	0.001485	0.008	0.003982	121.0095	0	70.34635	0.000383	0	0.041987	0.000501	0	0.020339	0.001231	0	0.173285	0.023895	0.020384	0.276746	0.001797	0	0.189725	0.023895	0.020384	0.276746	0.018228	0.186748	0	1.339893	0.001196	0	0.000695
Santa Clara	2025	LDT2	Aggregate	Aggregate	Gasoline	290874.7	10447706	10447706	0	1360241	0.06257	0	0.314364	0.001192	0	0.001919	0.002	0.00313	0.001296	0	0.002087	0.008	0.008944	338.2713	0	86.2638	0.002642	0	0.078494	0.005588	0	0.036037	0.010244	0	0.360071	0.079452	0.214938	1.349256	0.014949	0	0.394233	0.079452	0.214938	1.349256	0.03712	0.795621	0	3.47417	0.003344	0	0.000853
Santa Clara	2025	LDT2	Aggregate	Aggregate	Diesel	1049.952	38652.34	38652.34	0	4980.34	0.039332	0	0	0.004727	0	0	0.002	0.003123	0.004941	0	0	0.008	0.008921	306.7182	0	0	0.000603	0	0	0.048324	0	0	0.01298	0	0	0	0	0	0	0.014777	0	0	0	0	0	0.0031	0.129797	0	0	0.002906	0	0
Santa Clara	2025	LDT2	Aggregate	Aggregate	Electricity	2157.059	73663.77	0	73663.77	10962.38	0	0	0	0	0	0	0.002	0.001527	0	0	0	0.008	0.004362	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	LDT2	Aggregate	Aggregate	Plug-in Hyb	2561.885	112327.2	51267.44	61059.78	10593.4	0.002995	0	0.11551	0.000438	0	0.00161	0.002	0.001388	0.000477	0	0.001751	0.008	0.003967	127.2609	0	77.17666	0.000403	0	0.041992	0.000528	0	0.020344	0.001295	0	0.173285	0.026071	0.023359	0.305362	0.001893	0	0.189725	0.026071	0.023359	0.305362	0.019143	0.196395	0	1.339893	0.001258	0	0.000763
Santa Clara	2025	LHDT1	Aggregate	Aggregate	Gasoline	19422.46	728337	728337	0	289365.8	0.152112	0.035118	0.61458	0.001478	0	0.000276	0.002	0.0273	0.001607	0	0.0003	0.008	0.078	855.4024	117.9783	25.70715	0.007214	0.110329	0.031611	0.008613	0.002941	0.049929	0.03557	0.40247	0.15588	0.044275	0.247775	2.616411	0.051904	0.587284	0.170669	0.044275	0.247775	2.616411	0.044934	1.05316	3.759094	3.16195	0.008457	0.001166	0.000254
Santa Clara	2025	LHDT1	Aggregate	Aggregate	Diesel	10387.1	408019.3	408019.3	0	130656.7	1.379237	1.823414	0	0.032347	0.026692	0	0.003	0.0273	0.03381	0.027899	0	0.012	0.078	628.07	129.5472	0	0.007468	0.005098	0	0.098953	0.02041	0	0.160779	0.10976	0	0	0	0	0.183036	0.124954	0	0	0	0	0.17898	0.435087	0.909745	0	0.005951	0.001228	0
Santa Clara	2025	LHDT1	Aggregate	Aggregate	Electricity	196.402	13079.06	0	13079.06	2746.629	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	LHDT2	Aggregate	Aggregate	Gasoline	2512.652	91345.05	91345.05	0	37434.78	0.146187	0.034452	0.600885	0.001346	0	0.00022	0.002	0.03185	0.001464	0	0.000239	0.008	0.091	964.5764	136.4471	25.31105	0.005467	0.108422	0.030581	0.008804	0.002854	0.048245	0.025115	0.395081	0.149459	0.041982	0.228581	2.471298	0.036648	0.576501	0.163639	0.041982	0.228581	2.471298	0.044974	0.850878	3.765161	3.139903	0.009536	0.001349	0.00025
Santa Clara	2025	LHDT2	Aggregate	Aggregate	Diesel	4837.236	188645	188645	0	60846.34	1.139289	1.802658	0	0.030296	0.027005	0	0.003	0.03185	0.031666	0.028226	0	0.012	0.091	750.3571	207.2396	0	0.007043	0.005098	0	0.118219	0.032651	0	0.151622	0.10976	0	0	0	0	0.172612	0.124954	0	0	0	0	0.188496	0.387904	0.909745	0	0.00711	0.001964	0
Santa Clara	2025	LHDT2	Aggregate	Aggregate	Electricity	50.46202	3193.251	0	3193.251	669.175	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	MCY	Aggregate	Aggregate	Gasoline	28484.89	166414.5	166414.5	0	56969.79	0.557882	0	0.129146	0.001799	0	0.003253	0.001	0.0042	0.001925	0	0.003464	0.004	0.012	187.2679	0	47.30784	0.158292	0	0.177199	0.038984	0	0.007691	1.024683	0	1.305157	3.558651	3.760078	3.860886	1.236542	0	1.419098	3.558651	3.760078	3.860886	0.008851	12.31202	0	7.965438	0.001851	0	0.000468
Santa Clara	2025	MDV	Aggregate	Aggregate	Gasoline	159532.2	5551044	5551044	0	739781.4	0.087905	0	0.391886	0.001179	0	0.001962	0.002	0.003182	0.001282	0	0.002134	0.008	0.009091	410.3223	0	104.9535	0.003431	0	0.094137	0.006921	0	0.039073	0.014165	0	0.463643	0.092515	0.265086	1.620407	0.020668	0	0.50763	0.092515	0.265086	1.620407	0.036883	0.895922	0	3.753621	0.004056	0	0.001038
Santa Clara	2025	MDV	Aggregate	Aggregate	Diesel	2421.364	85326.8	85326.8	0	11351.14	0.044948	0	0	0.004686	0	0	0.002	0.003225	0.004898	0	0	0.008	0.009216	404.5816	0	0	0.000492	0	0	0.063742	0	0	0.010592	0	0	0	0	0	0	0.012058	0	0	0	0	0	0.0031	0.199936	0	0	0.003834	0	0
Santa Clara	2025	MDV	Aggregate	Aggregate	Electricity	2274.547	77934.96	0	77934.96	11571.06	0	0	0	0	0	0	0.002	0.001526	0	0	0	0.008	0.004361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	MDV	Aggregate	Aggregate	Plug-in Hyb	1542.366	64484.39	29833.21	34651.18	6377.683	0.003036	0	0.11551	0.000507	0	0.00183	0.002	0.001388	0.000551	0	0.00199	0.008	0.003965	128.9983	0	95.11137	0.000407	0	0.041816	0.00053	0	0.02018	0.001313	0	0.173285	0.02949	0.025333	0.327899	0.001916	0	0.189725	0.02949	0.025333	0.327899	0.019431	0.199076	0	1.339893	0.001275	0	0.00094
Santa Clara	2025	MH	Aggregate	Aggregate	Gasoline	2337.876	21506.19	21506.19	0	233.8812	0.37652	0	0.425905	0.001612	0	0.000388	0.003	0.015756	0.001753	0	0.000422	0.012	0.045017	1947.057	0	31.4529	0.013722	0	0.036945	0.023864	0	0.045303	0.059455	0	0.154277	11.38549	0.268831	4.357209	0.086757	0	0.168914	11.38549	0.268831	4.357209	0.044879	1.426924	0	3.382931	0.019249	0	0.000311
Santa Clara	2025	MH	Aggregate	Aggregate	Diesel	994.5437	9603.893	9603.893	0	99.45437	3.976372	0	0	0.086098	0	0	0.004	0.015675	0.08999	0	0	0.016	0.044785	1082.401	0	0	0.005421	0	0	0.170533	0	0	0.116701	0	0	0	0	0	0	0.132856	0	0	0	0	0	0.166635	0.385118	0	0	0.010256	0	0
Santa Clara	2025	MHDT	Aggregate	Aggregate	Gasoline	1412.263	72039.87	72039.87	0	28256.55	0.394798	0.086175	0.424333	0.001347	0	0.000513	0.003	0.015756	0.001465	0	0.000558	0.012	0.045017	1746.959	526.7233	45.37618	0.012585	0.261076	0.04598	0.019987	0.007219	0.032398	0.061949	1.015127	0.253154	0.030988	0.250472	2.558011	0.060397	1.481271	0.277172	0.030988	0.250472	2.558011	0.044991	1.276089	15.1444	5.531626	0.01727	0.005207	0.000449
Santa Clara	2025	MHDT	Aggregate	Aggregate	Diesel	10548.06	435100.6	435100.6	0	125915.2	1.128155	12.74108	1.646559	0.012461	0.024792	0	0.003	0.015941	0.013024	0.025912	0	0.012	0.045545	1141.328	2229.374	0	0.00131	0.010957	0	0.179817	0.351239	0	0.028195	0.235896	0	0	0	0	0.032098	0.268549	0	0	0	0	0.211891	0.109646	7.535393	0	0.010808	0.021111	0
Santa Clara	2025	MHDT	Aggregate	Aggregate	Electricity	90.80851	4838.906	0	4838.906	1182.343	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	MHDT	Aggregate	Aggregate	Natural Ga	98.90628	4590.307	4590.307	0	911.9208	0.12435	6.45266	0	0.002126	0.018594	0	0.003	0.016009	0.001333	0.020223	0	0.012	0.045741	979.0142	1290.545	0	0.751438	16.97256	0	0.199578	1.078512	0	0.010737	0.242504	0	0	0	0	0	0.766898	17.32175	0	0	0	0	1.06	2.996166	35.80775	0	0	0	0
Santa Clara	2025	OBUS	Aggregate	Aggregate	Gasoline	430.7023	18962.49	18962.49	0	8617.491	0.460353	0.06398	0.405045	0.000939	0	0.000255	0.003	0.01568	0.001022	0	0.000278	0.012	0.044799	1744.286	377.0226	31.37018	0.012641	0.195762	0.035581	0.02242	0.005219	0.030806	0.061504	0.74652	0.188569	0.033827	0.158433	2.881145	0.089747	1.089321	0.206459	0.033827	0.158433	2.881145	0.04498	1.352776	5.776073	3.953891	0.017244	0.003727	0.00031
Santa Clara	2025	OBUS	Aggregate	Aggregate	Diesel	921.4116	62304.89	62304.89	0	9451.527	1.133246	7.151668	1.532624	0.018916	0.007596	0	0.003	0.018017	0.019772	0.007939	0	0.012	0.051478	1259.126	1532.11	0	0.001844	0.020685	0	0.198376	0.241385	0	0.039711	0.445333	0	0	0	0	0.045208	0.506978	0	0	0	0	0.216212	0.14449	7.587325	0	0.011923	0.014508	0
Santa Clara	2025	OBUS	Aggregate	Aggregate	Electricity	2.672031	221.771	0	221.771	53.46199	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	OBUS	Aggregate	Aggregate	Natural Ga	8.125306	537.7468	537.7468	0	72.31523	0.164816	1.526623	0	0.001183	0.004157	0	0.003	0.016148	0.001287	0.004521	0	0.012	0.046137	987.912	1189.826	0	0.803903	4.103659	0	0.201392	0.242554	0	0.011486	0.058633	0	0	0	0	0	0.820442	4.188085	0	0	0	0	1.06	3.29233	7.933419	0	0	0	0
Santa Clara	2025	SBUS	Aggregate	Aggregate	Gasoline	178.2436	8812.851	8812.851	0	712.9742	0.487257	0.905562	0.722985	0.000866	0	0.000573	0.002	0.015721	0.000942	0	0.000623	0.008	0.044917	806.3455	2576.863	57.67146	0.010523	2.465929	0.074733	0.026439	0.084425	0.066434	0.051046	10.63602	0.42511	0.118631	0.292211	1.797789	0.074486	15.52005	0.465442	0.118631	0.292211	1.797789	0.045	1.308927	82.20747	10.20511	0.007972	0.025475	0.00057
Santa Clara	2025	SBUS	Aggregate	Aggregate	Diesel	673.2048	15283.75	15283.75	0	9748.005	3.614242	21.38359	0.496308	0.018677	0.018235	0	0.003	0.015721	0.019521	0.019059	0	0.012	0.044917	1139.829	2219.616	0	0.002583	0.007936	0	0.179581	0.349701	0	0.055601	0.170862	0	0	0	0	0.063298	0.194514	0	0	0	0	0.151888	0.17348	4.777291	0	0.010794	0.021018	0
Santa Clara	2025	SBUS	Aggregate	Aggregate	Electricity	4.481168	145.0761	0	145.0761	51.24766	0	0	0	0	0	0	0.002	0.002556	0.00786	0	0	0	0.010226	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	SBUS	Aggregate	Aggregate	Natural Ga	25.28439	627.586	627.586	0	366.118	0.5494	5.260001	0	0.003378	0.011617	0	0.003	0.015721	0.003674	0.012635	0	0.012	0.044917	1252.115	4074.049	0	3.386209	15.12215	0	0.255252	0.830522	0	0.048382	0.216066	0	0	0	0	0	0.345875	15.43326	0	0	0	0	1.06	11.41153	21.33281	0	0	0	0
Santa Clara	2025	UBUS	Aggregate	Aggregate	Gasoline	46.21918	4826.658	4826.658	0	184.8767	0.027276	0	0.449893	0.001143	0	0.000128	0.002	0.03185	0.001243	0	0.00014	0.008	0.091	925.8676	0	36.64281	0.001993	0	0.043054	0.004259	0	0.070843	0.005515	0	0.152699	0.04366	0.092112	0.471505	0.008047	0	0.167186	0.04366	0.092112	0.471505	0.045	0.586139	0	5.942314	0.009153	0	0.000362
Santa Clara	2025	UBUS	Aggregate	Aggregate	Diesel	405.3675	44987.37	44987.37	0	1621.47	0.382968	0	0	0.006962	0	0	0.008	0.03238	0.0385	0.007277	0	0	0.032951	0.11	1121.875	0	0	0.003193	0	0	0.176752	0	0	0.06875	0	0	0	0	0.078266	0	0	0	0	0	0.22	0.0787	0	0	0.01063	0	0
Santa Clara	2025	UBUS	Aggregate	Aggregate	Electricity	23.31202	2427.54	0	2427.54	93.24809	0	0	0	0	0	0	0.008	0.008977	0.01925	0	0	0	0.035907	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2025	UBUS	Aggregate	Aggregate	Natural Ga	58.16247	6762.418	6762.418	0	232.6499	0.060506	0	0	0.000287	0	0	0.008408	0.0385	0.0003	0	0	0	0.033634	0.11	1317.877	0	0	4.320397	0	0	0.268658	0	0	0.06173	0	0	0	0	4.409282	0	0	0	0	0	0.97	50.3461	0	0	0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM10_RUN	PM10_IDLE	PM10_STR	PM10_PM	TOG_RUNEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTS	ROG_RUNL	ROG_DIUR	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTS	TOG_RUNL	TOG_DIUR	NH3_RUNEX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2026	HHDT	Aggregate	Aggregate	Gasoline	1.890208	133.7551	133.7551	0	37.81927	3.912832	0	0.833967	0.00242	0	0.001119	0.005	0.0327	0.002632	0	0.001218	0.02	0.093428	2030.337	0	50.00574	0.151681	0	0.000277	0.138602	0	0.029726	0.841165	0	0.001504	0.124256	1.119044	7.839877	1.227426	0	0.001647	0.124256	1.119044	7.839877	0.044272	33.21272	0	2.727013	0.020072	0	0.000494
Santa Clara	2026	HHDT	Aggregate	Aggregate	Diesel	8867.795	1016012	1016012	0	130549	1.761105	62.03312	2.955473	0.025195	0.027767	0	0.008774	0.027513	0.026334	0.029023	0	0.035095	0.07861	1583.151	11526.41	0	0.000725	0.23528	0	0.249426	1.815991	0	0.015602	5.065515	0	0	0	0	0.017762	5.766703	0	0	0	0	0.215914	0.07407	73.94194	0	0.014991	0.109148	0
Santa Clara	2026	HHDT	Aggregate	Aggregate	Electricity	110.5302	11535.57	0	11535.57	1443.078	0	0	0	0	0	0	0	0	0	0	0	0.034232	0.042083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	HHDT	Aggregate	Aggregate	Natural Ga	863.4608	56635.39	56635.39	0	7769.707	0.976371	12.77067	0	0.001645	0.025604	0	0.009	0.049192	0.001789	0.027847	0	0.036	0.140547	1365.074	10446.87	0	2.127999	33.90059	0	0.278279	2.129663	0	0.043949	0.508241	0	0	0	0	2.18721	34.62523	0	0	0	0	0.835034	12.62839	75.02016	0	0	0	0
Santa Clara	2026	LDA	Aggregate	Aggregate	Gasoline	598869.8	22031466	22031466	0	2780456	0.034968	0	0.23463	0.001102	0	0.001828	0.002	0.002655	0.001199	0	0.001988	0.008	0.007585	268.3766	0	67.64288	0.001934	0	0.063951	0.004196	0	0.031426	0.007138	0	0.285908	0.083161	0.217573	1.338275	0.010415	0	0.313033	0.083161	0.217573	1.338275	0.036474	0.659308	0	2.884139	0.002659	0	0.000669
Santa Clara	2026	LDA	Aggregate	Aggregate	Diesel	1478.944	42434.32	42434.32	0	6277.405	0.163286	0	0	0.013397	0	0	0.002	0.002717	0.014003	0	0	0.008	0.007761	228.026	0	0	0.001079	0	0	0.035926	0	0	0.023239	0	0	0	0	0	0.026457	0	0	0	0	0	0.0031	0.307439	0	0	0.002161	0	0
Santa Clara	2026	LDA	Aggregate	Aggregate	Electricity	64495.24	2739705	0	2739705	312996.4	0	0	0	0	0	0	0.002	0.001535	0	0	0	0.008	0.004385	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	LDA	Aggregate	Aggregate	Plug-in Hyb	20380.43	866414.1	412496.8	453917.3	84273.1	0.003124	0	0.11551	0.000542	0	0.001902	0.002	0.001386	0.000589	0	0.002068	0.008	0.00396	132.7519	0	64.33622	0.000421	0	0.042044	0.000552	0	0.020392	0.001351	0	0.173285	0.040391	0.037456	0.436203	0.001971	0	0.189725	0.040391	0.037456	0.436203	0.019017	0.204877	0	1.339893	0.001312	0	0.000636
Santa Clara	2026	LDT1	Aggregate	Aggregate	Gasoline	50750.47	1625960	1625960	0	225981.5	0.104002	0	0.340042	0.001548	0	0.002421	0.002	0.003241	0.001684	0	0.002633	0.008	0.009261	319.1884	0	83.2086	0.005058	0	0.092241	0.008041	0	0.036412	0.022051	0	0.461638	0.148727	0.41724	2.377298	0.032177	0	0.505436	0.148727	0.41724	2.377298	0.036833	1.219346	0	4.549174	0.003156	0	0.000823
Santa Clara	2026	LDT1	Aggregate	Aggregate	Diesel	18.47771	256.5587	256.5587	0	50.46	1.626008	0	0	0.235786	0	0	0.002	0.003714	0.246448	0	0	0.008	0.010612	414.3219	0	0	0.013655	0	0	0.065277	0	0	0.293995	0	0	0	0	0	0.334693	0	0	0	0	0	0.0031	1.580267	0	0	0.003926	0	0
Santa Clara	2026	LDT1	Aggregate	Aggregate	Electricity	263.5822	10628.88	0	10628.88	1254.204	0	0	0	0	0	0	0.002	0.001536	0	0	0	0.008	0.004388	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	LDT1	Aggregate	Aggregate	Plug-in Hyb	130.6819	5898.082	2516.052	3382.03	540.3696	0.002799	0	0.11551	0.000332	0	0.001311	0.002	0.001397	0.000362	0	0.001426	0.008	0.003992	118.9473	0	69.43161	0.000375	0	0.041793	0.000489	0	0.020158	0.00121	0	0.173285	0.023415	0.020044	0.275174	0.001766	0	0.189725	0.023415	0.020044	0.275174	0.017917	0.183572	0	1.339893	0.001176	0	0.000586
Santa Clara	2026	LDT2	Aggregate	Aggregate	Gasoline	296178.9	10561285	10561285	0	1383934	0.057197	0	0.297788	0.00115	0	0.001868	0.002	0.003134	0.00125	0	0.002032	0.008	0.008953	332.1248	0	84.47809	0.002453	0	0.074444	0.005294	0	0.035027	0.009395	0	0.338458	0.076755	0.212879	1.330363	0.013709	0	0.370569	0.076755	0.212879	1.330363	0.037798	0.757265	0	3.299571	0.003283	0	0.000835
Santa Clara	2026	LDT2	Aggregate	Aggregate	Diesel	1079.589	39200.14	39200.14	0	5104.36	0.037108	0	0	0.004598	0	0	0.002	0.00313	0.004806	0	0	0.008	0.008943	302.0718	0	0	0.000595	0	0	0.047592	0	0	0.012807	0	0	0	0	0	0.01458	0	0	0	0	0	0.0031	0.12935	0	0	0.002862	0	0
Santa Clara	2026	LDT2	Aggregate	Aggregate	Electricity	2705.079	90693.22	0	90693.22	13682.37	0	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	LDT2	Aggregate	Aggregate	Plug-in Hyb	2986.353	127896.3	57308.29	70587.98	12348.57	0.00294	0	0.11551	0.000411	0	0.00154	0.002	0.001392	0.000447	0	0.001675	0.008	0.003978	124.9411	0	76.35739	0.000394	0	0.041776	0.000513	0	0.020142	0.001271	0	0.173285	0.025698	0.023308	0.30414	0.001855	0	0.189725	0.025698	0.023308	0.30414	0.018799	0.192822	0	1.339893	0.001235	0	0.000755
Santa Clara	2026	LHDT1	Aggregate	Aggregate	Gasoline	19567.35	734252.9	734252.9	0	291524.3	0.134825	0.034078	0.592259	0.00144	0	0.000258	0.002	0.0273	0.001567	0	0.00028	0.008	0.078	841.5517	116.9335	25.61185	0.00645	0.107779	0.030306	0.00767	0.002904	0.048837	0.03157	0.390607	0.14863	0.042429	0.244239	2.568634	0.046067	0.569973	0.162731	0.042429	0.244239	2.568634	0.044952	1.000325	3.761042	3.194844	0.00832	0.001156	0.000253
Santa Clara	2026	LHDT1	Aggregate	Aggregate	Diesel	10635.31	416619.3	416619.3	0	133778.8	1.219281	1.732484	0	0.030022	0.026603	0	0.003	0.0273	0.031379	0.027806	0	0.012	0.078	625.228	128.0664	0	0.006994	0.005098	0	0.098505	0.020177	0	0.150578	0.10976	0	0	0	0	0.171423	0.124954	0	0	0	0	0.184377	0.40172	0.909745	0	0.005924	0.001213	0
Santa Clara	2026	LHDT1	Aggregate	Aggregate	Electricity	378.0593	23974.57	0	23974.57	5290.738	0	0	0	0	0	0	0.002	0.01365	0	0	0	0.008	0.039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	LHDT2	Aggregate	Aggregate	Gasoline	2513.651	91174.03	91174.03	0	37449.66	0.127191	0.033359	0.581518	0.001301	0	0.0002	0.002	0.03185	0.001415	0	0.000218	0.008	0.091	950.6797	135.3583	25.11699	0.00457	0.105616	0.029314	0.007823	0.002803	0.047205	0.020413	0.382638	0.142338	0.039798	0.221425	2.401547	0.029786	0.558345	0.155842	0.039798	0.221425	2.401547	0.04499	0.781956	3.768092	3.147796	0.009398	0.001338	0.000248
Santa Clara	2026	LHDT2	Aggregate	Aggregate	Diesel	4995.258	193100.7	193100.7	0	62834.06	1.030069	1.717944	0	0.028773	0.027014	0	0.003	0.03185	0.030074	0.028235	0	0.012	0.091	744.6842	205.1133	0	0.00672	0.005098	0	0.117325	0.032316	0	0.144681	0.10976	0	0	0	0	0.16471	0.124954	0	0	0	0	0.19232	0.367309	0.909745	0	0.007056	0.001944	0
Santa Clara	2026	LHDT2	Aggregate	Aggregate	Electricity	96.38373	5822.064	0	5822.064	1278.565	0	0	0	0	0	0	0.002	0.015925	0	0	0	0.008	0.0455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	MCY	Aggregate	Aggregate	Gasoline	28797.04	167092.5	167092.5	0	57594.08	0.54585	0	0.123182	0.001818	0	0.003256	0.001	0.0042	0.001945	0	0.00347	0.004	0.012	186.8446	0	46.30646	0.154451	0	0.172746	0.038475	0	0.007381	0.991178	0	1.267526	3.558543	3.769688	3.854231	1.200425	0	1.378329	3.558543	3.769688	3.854231	0.008889	11.99329	0	7.931677	0.001847	0	0.000458
Santa Clara	2026	MDV	Aggregate	Aggregate	Gasoline	162557.9	5631323	5631323	0	753924.4	0.077249	0	0.361249	0.00113	0	0.001888	0.002	0.003182	0.001228	0	0.002053	0.008	0.00909	402.7076	0	102.7358	0.003084	0	0.087398	0.006351	0	0.037495	0.012544	0	0.424623	0.087977	0.255029	1.559913	0.018304	0	0.464909	0.087977	0.255029	1.559913	0.037518	0.838043	0	3.531694	0.003981	0	0.001016
Santa Clara	2026	MDV	Aggregate	Aggregate	Diesel	2430.299	84111.54	84111.54	0	11337.22	0.040802	0	0	0.004381	0	0	0.002	0.003241	0.004579	0	0	0.008	0.009261	399.673	0	0	0.000469	0	0	0.062969	0	0	0.010103	0	0	0	0	0	0.011502	0	0	0	0	0	0.0031	0.197458	0	0	0.003787	0	0
Santa Clara	2026	MDV	Aggregate	Aggregate	Electricity	2850.956	95858.35	0	95858.35	14435.41	0	0	0	0	0	0	0.002	0.001528	0	0	0	0.008	0.004365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	MDV	Aggregate	Aggregate	Plug-in Hyb	1813.351	74577.72	33714.26	40863.46	7498.208	0.002966	0	0.11551	0.000463	0	0.001713	0.002	0.001392	0.000504	0	0.001863	0.008	0.003977	126.0521	0	93.79299	0.000396	0	0.041612	0.000513	0	0.019989	0.001283	0	0.173285	0.029908	0.026996	0.337381	0.001872	0	0.189725	0.029908	0.026996	0.337381	0.018987	0.194537	0	1.339893	0.001246	0	0.000927
Santa Clara	2026	MH	Aggregate	Aggregate	Gasoline	2263.186	21108.38	21108.38	0	226.4092	0.335195	0	0.432131	0.001549	0	0.000374	0.003	0.015756	0.001685	0	0.000406	0.012	0.045017	1946.632	0	31.26805	0.012049	0	0.036404	0.022132	0	0.046519	0.050974	0	0.149854	10.64717	0.254614	4.131655	0.074381	0	0.164071	10.64717	0.254614	4.131655	0.044921	1.181993	0	3.275797	0.019244	0	0.000309
Santa Clara	2026	MH	Aggregate	Aggregate	Diesel	1010.774	9718.417	9718.417	0	101.0774	3.846579	0	0	0.08072	0	0	0.004	0.015675	0.084369	0	0	0.016	0.044785	1082.849	0	0	0.005293	0	0	0.170603	0	0	0.11395	0	0	0	0	0	0.129725	0	0	0	0	0	0.016529	0.373655	0	0	0.010261	0	0
Santa Clara	2026	MHDT	Aggregate	Aggregate	Gasoline	1410.726	72468.64	72468.64	0	28225.8	0.333028	0.083566	0.407845	0.001339	0	0.000499	0.003	0.015756	0.001457	0	0.000542	0.012	0.045017	1727.179	521.8124	44.55752	0.010627	0.263675	0.044579	0.017598	0.007127	0.032029	0.051634	1.01721	0.242322	0.028744	0.236552	2.400687	0.075345	1.48431	0.265312	0.028744	0.236552	2.400687	0.044997	1.050142	15.1686	5.262786	0.017075	0.005159	0.00044
Santa Clara	2026	MHDT	Aggregate	Aggregate	Diesel	10675.11	435455.4	435455.4	0	127504.2	1.02886	12.38939	1.644141	0.010796	0.020382	0	0.003	0.015941	0.011284	0.021304	0	0.012	0.045545	1134.952	2210.329	0	0.001134	0.010419	0	0.178812	0.348238	0	0.024422	0.224312	0	0	0	0	0.027803	0.255363	0	0	0	0	0.213113	0.099563	7.520816	0	0.010747	0.02093	0
Santa Clara	2026	MHDT	Aggregate	Aggregate	Electricity	167.5841	8816.663	0	8816.663	2173.174	0	0	0	0	0	0	0.003	0.007951	0	0	0	0.012	0.022716	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	MHDT	Aggregate	Aggregate	Natural Ga	107.6314	4901.771	4901.771	0	1001.682	0.116472	6.407029	0	0.002266	0.018977	0	0.003	0.01601	0.001377	0.020639	0	0.012	0.045743	973.703	5277.958	0	0.755705	16.66564	0	0.198496	1.075946	0	0.010798	0.238119	0	0	0	0	0.771252	17.00851	0	0	0	0	1.06	2.995274	36.69576	0	0	0	0
Santa Clara	2026	OBUS	Aggregate	Aggregate	Gasoline	419.1997	18162.11	18162.11	0	8387.348	0.418185	0.062602	0.399155	0.00097	0	0.000258	0.003	0.01568	0.001055	0	0.000281	0.012	0.044799	1724.911	374.6239	31.08783	0.011431	0.195819	0.035179	0.020728	0.005108	0.030453	0.055331	0.746751	0.186435	0.035194	0.177337	3.200029	0.080739	1.089657	0.204123	0.035194	0.177337	3.200029	0.04499	1.215872	5.777453	3.882011	0.017053	0.003704	0.000307
Santa Clara	2026	OBUS	Aggregate	Aggregate	Diesel	949.0452	62674.48	62674.48	0	9750.025	1.092349	6.912226	1.518478	0.018173	0.007147	0	0.003	0.018049	0.018995	0.00747	0	0.012	0.05157	1245.043	1523.794	0	0.001766	0.020826	0	0.196157	0.240074	0	0.038011	0.448385	0	0	0	0	0.043273	0.510453	0	0	0	0	0.216379	0.139488	7.649271	0	0.01179	0.014429	0
Santa Clara	2026	OBUS	Aggregate	Aggregate	Electricity	4.484159	364.7881	0	364.7881	89.71906	0	0	0	0	0	0	0.003	0.00784	0	0	0	0.012	0.022399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	OBUS	Aggregate	Aggregate	Natural Ga	9.101244	599.9791	599.9791	0	81.00107	0.145347	1.518344	0	0.001276	0.004354	0	0.003	0.016148	0.001388	0.004735	0	0.012	0.046137	975.0003	1187.914	0	0.81456	4.001439	0	0.19876	0.242164	0	0.011638	0.057173	0	0	0	0	0.831318	4.083762	0	0	0	0	1.06	3.321042	8.378673	0	0	0	0
Santa Clara	2026	SBUS	Aggregate	Aggregate	Gasoline	183.7933	9054.551	9054.551	0	735.1732	0.474165	0.887577	0.73371	0.000873	0	0.00058	0.002	0.015721	0.00095	0	0.000631	0.008	0.044917	802.4349	2565.528	57.27504	0.01005	2.4667	0.074539	0.025921	0.082658	0.067212	0.048718	10.63718	0.423572	0.1241	0.322638	1.96833	0.07109	15.52175	0.463758	0.1241	0.322638	1.96833	0.045	1.246814	82.21455	10.07789	0.007933	0.025363	0.000566
Santa Clara	2026	SBUS	Aggregate	Aggregate	Diesel	674.9981	15210.89	15210.89	0	9773.973	3.406071	20.83077	0.509343	0.017715	0.016839	0	0.003	0.015721	0.018516	0.017601	0	0.012	0.044917	1135.538	2209.663	0	0.002498	0.007888	0	0.178905	0.348133	0	0.053781	0.169828	0	0	0	0	0.061225	0.193336	0	0	0	0	0.155771	0.169257	4.880858	0	0.010753	0.020924	0
Santa Clara	2026	SBUS	Aggregate	Aggregate	Electricity	7.587222	244.2395	0	244.2395	87.39442	0	0	0	0	0	0	0.002	0.00786	0	0	0	0.008	0.01027	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	SBUS	Aggregate	Aggregate	Natural Ga	26.16468	642.5523	642.5523	0	378.8645	0.532059	5.249897	0	0.003378	0.011858	0	0.003	0.015721	0.003674	0.012897	0	0.012	0.044917	1243.421	4080.833	0	3.338467	14.99739	0	0.25348	0.831904	0	0.0477	0.214283	0	0	0	0	3.407151	15.30593	0	0	0	0	1.06	11.18687	21.87624	0	0	0	0
Santa Clara	2026	UBUS	Aggregate	Aggregate	Gasoline	46.35522	4840.865	4840.865	0	185.4209	0.026897	0	0.439741	0.001143	0	0.000128	0.002	0.03185	0.001243	0	0.00014	0.008	0.091	925.6516	0	36.30949	0.001945	0	0.042807	0.004209	0	0.069602	0.005374	0	0.151507	0.043604	0.092107	0.471119	0.007841	0	0.165881	0.043604	0.092107	0.471119	0.045	0.590355	0	5.738214	0.009151	0	0.000359
Santa Clara	2026	UBUS	Aggregate	Aggregate	Diesel	396.77	44084.04	44084.04	0	1587.08	0.382074	0	0	0.006946	0	0	0.003	0.008221	0.0385	0.00726	0	0	0.032883	0.11	1110.339	0	0	0.004187	0	0	0.174934	0	0	0.068625	0	0	0	0	0.078125	0	0	0	0	0	0.22	0.078518	0	0	0.010521	0	0
Santa Clara	2026	UBUS	Aggregate	Aggregate	Electricity	28.65959	2995.558	0	2995.558	114.6384	0	0	0	0	0	0	0.003	0.008972	0.01925	0	0	0	0.035887	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Clara	2026	UBUS	Aggregate	Aggregate	Natural Ga	62.84535	7257.192	7257.192	0	251.3814	0.060787	0	0	0.000288	0	0	0.003	0.008445	0.0385	0.000301	0	0	0.033781	0.11	1320.935	0	0	4.332576	0	0	0.269281	0	0	0.061904	0	0	0	0	4.421712	0	0	0	0	0	0.97	50.5588	0	0	0	0	0

Attachment 4: Project Construction Dispersion Modeling Inputs and Risk Calculations

4300 Stevens Creek Blvd, San Jose, CA

Year	Unmitigated DPM	DPM EMFAC2021	Unmitigated Emissions	Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Unmitigated Emissions
2023	0.1208	0.0034	0.1242	0.1891	0.0038	0.1929
2024	0.0803	0.0034	0.0837	0.0000	0.0039	0.0039
2025	0.0275	0.0018	0.0293	0.0000	0.0021	0.0021

Year	Mitigated DPM	DPM EMFAC2021	Mitigated Emissions	Mitigated Fug PM2.5	Fug PM2.5 EMFAC2021	Mitigated Emissions
2023	0.0111	0.0034	0.0145	0.0851	0.0038	0.0889
2024	0.0111	0.0034	0.0145	0.0000	0.0039	0.0039
2025	0.0038	0.0018	0.0056	0.0000	0.0021	0.0021

4300 Stevens Creek Blvd, San Jose, CA - Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

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

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

4300 Stevens Creek Blvd, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2023	Construction	0.1242	Point	313	248.4	0.07561	9.53E-03	3.04E-05
2024	Construction	0.0837	Point	313	167.3	0.05093	6.42E-03	2.05E-05
2025	Construction	0.0293	Point	313	58.6	0.01784	2.25E-03	7.18E-06
Total		***0.2371***			***474.3***	***0.1444***	***0.0182***	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2023	Construction	0.0145	Point	313	29.0	0.00882	1.11E-03	3.55E-06
2024	Construction	0.0145	Point	313	28.9	0.00880	1.11E-03	3.54E-06
2025	Construction	0.0056	Point	313	11.2	0.00342	4.30E-04	1.38E-06
Total		***0.0346***			***69.1***	***0.0210***	***0.0027***	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

4300 Stevens Creek Blvd, San Jose, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2023	Construction	CON_FUG	0.1929	385.9	0.11746	1.48E-02	31958.1	4.63E-07
2024	Construction	CON_FUG	0.0039	7.7	0.00234	2.95E-04	31958.1	9.24E-09
2025	Construction	CON_FUG	0.0021	4.2	0.00127	1.61E-04	31958.1	5.03E-09
Total			***0.1989***	***397.7***	***0.1211***	***0.0153***		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

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

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2023	Construction	CON_FUG	0.0889	177.9	0.05414	6.82E-03	31958.1	2.13E-07
2024	Construction	CON_FUG	0.0039	7.7	0.00234	2.95E-04	31958.1	9.24E-09
2025	Construction	CON_FUG	0.0021	4.2	0.00127	1.61E-04	31958.1	5.03E-09
Total			***0.0949***	***189.7***	***0.0578***	***0.0073***		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

4300 Stevens Creek Blvd, San Jose, CA - Construction Health Impact Summary

Maximum Impacts at MEI Residential Location - Without Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2023	0.0612	0.2214	10.89	0.18	0.01	0.28
2024	0.0412	0.0044	6.77	0.12	0.01	0.05
2025	0.0144	0.0024	0.37	0.04	0.003	0.02
Total	-	-	**18.03**	**0.34**	-	-
Maximum	0.0612	0.2214	**-**	**-**	**0.01**	**0.28**

Maximum Impacts at MEI Residential Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2023	0.0071	0.1019	1.27	0.02	0.001	0.11
2024	0.0071	0.0044	1.17	0.02	0.001	0.01
2025	0.0028	0.0024	0.07	0.01	0.001	0.01
Total	-	-	**2.51**	**0.05**	-	-
Maximum	0.0071	0.1019	**-**	**-**	**0.001**	**0.11**

- Tier 4 Interim Engine and BMPs for Mitigation

4300 Stevens Creek Blvd, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0612	10	0.83	2023	0.0612	-	-			
1	1	0 - 1	2023	0.0612	10	10.06	2023	0.0612	1	0.18	0.0122	0.2214	0.2826
2	1	1 - 2	2024	0.0412	10	6.77	2024	0.0412	1	0.12	0.0082	0.0044	0.0457
3	1	2 - 3	2025	0.0144	3	0.37	2025	0.0144	1	0.04	0.0029	0.0024	0.0169
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**18.03**				**0.34**			

* Third trimester of pregnancy

4300 Stevens Creek Blvd, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height (2nd Floor Level)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0609	10	0.83	2023	0.0609	-	-			
1	1	0 - 1	2023	0.0609	10	10.00	2023	0.0609	1	0.17	0.0122	0.1823	0.2432
2	1	1 - 2	2024	0.0410	10	6.73	2024	0.0410	1	0.12	0.0082	0.0036	0.0446
3	1	2 - 3	2025	0.0144	3	0.37	2025	0.0144	1	0.04	0.0029	0.0020	0.0163
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**17.93**				**0.33**			

* Third trimester of pregnancy

4300 Stevens Creek Blvd, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	0.0071	10	0.10	2023	0.0071	-	-			
1	1	0 - 1	2023	0.0071	10	1.17	2023	0.0071	1	0.02	0.0014	0.1019	0.1090
2	1	1 - 2	2024	0.0071	10	1.17	2024	0.0071	1	0.02	0.0014	0.0044	0.0116
3	1	2 - 3	2025	0.0028	3	0.07	2025	0.0028	1	0.01	0.0006	0.0024	0.0052
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**2.51**				**0.05**			

* Third trimester of pregnancy

Attachment 5: Cumulative Community Risk from Existing TAC Sources

CT-EMFAC2017 Emissions Factors for Santa Clara County 2023

File Name: 4300 SCB - Santa Clara (SF) - 2023 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/3/2021 15:58
Area: Santa Clara (SF)
Analysis Year: 2023
Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.015	0.487	0.513
Truck 2	0.02	0.938	0.047
Non-Truck	0.965	0.014	0.958

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
PM2.5	0.009229	0.005981	0.004054	0.002896	0.002194	0.001765	0.001511	0.001375	0.001329
TOG	0.195764	0.127928	0.086105	0.061055	0.046181	0.036838	0.030861	0.027137	0.025044
Diesel PM	0.000904	0.000732	0.000563	0.000446	0.000382	0.000353	0.00035	0.00037	0.000411

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

Pollutant Name	Emission Factor
TOG	1.35761

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	0.016808

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

Pollutant Name	Emission Factor
PM2.5	0.014855

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

Stevens Creek Blvd Traffic Emissions and Health Risk Calculations

Analysis Year = ***2023***

Vehicle Type	2019 Caltrans Vehicles (veh/day)	2023 Vehicles (veh/day)
Total	**24,585**	**25,568**

Increase From 2019	1.04
Vehicles/Direction	**12,784**
Avg Vehicles/Hour/Direction	533

Traffic Data Year = ***2019***

Project Traffic Data - Background Plus Project ADT	AADT Total	Total Truck
Kiely Blvd & Stevens Creek Blvd	24,585	863
	Percent of Total Vehicles	3.51%

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	55.7	3.4	Varied	12,784	14,432	155,344	2.004E-09	1.478E-09	6.8	3.16
DPM_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	55.7	3.4	Varied	12,784	14,396	154,961	2.004E-09	1.478E-09	6.8	3.16
									Total	25,568						

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.00037	0.00035		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	500	2.71E-05	9	6.50%	831	4.27E-05	17	5.58%	713	3.66E-05
2	2.59%	331	1.80E-05	10	7.36%	941	5.11E-05	18	3.28%	419	2.15E-05
3	2.88%	368	2.00E-05	11	6.33%	809	4.39E-05	19	2.36%	301	1.64E-05
4	3.34%	426	2.32E-05	12	6.84%	875	4.75E-05	20	0.92%	118	6.39E-06
5	2.19%	279	1.52E-05	13	6.15%	787	4.27E-05	21	2.99%	382	2.08E-05
6	3.39%	434	2.36E-05	14	6.15%	787	4.27E-05	22	4.14%	529	2.87E-05
7	5.98%	765	4.15E-05	15	5.23%	669	3.63E-05	23	2.47%	316	1.72E-05
8	4.66%	595	3.06E-05	16	3.91%	500	2.71E-05	24	0.86%	110	5.99E-06
								Total		12,784	

2023 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	500	2.71E-05	9	6.50%	831	4.26E-05	17	5.58%	713	3.65E-05
2	2.59%	331	1.79E-05	10	7.36%	941	5.10E-05	18	3.28%	419	2.15E-05
3	2.88%	368	1.99E-05	11	6.33%	809	4.38E-05	19	2.36%	301	1.63E-05
4	3.34%	426	2.31E-05	12	6.84%	875	4.74E-05	20	0.92%	118	6.37E-06
5	2.19%	279	1.51E-05	13	6.15%	787	4.26E-05	21	2.99%	382	2.07E-05
6	3.39%	434	2.35E-05	14	6.15%	787	4.26E-05	22	4.14%	529	2.87E-05
7	5.98%	765	4.14E-05	15	5.23%	669	3.62E-05	23	2.47%	316	1.71E-05
8	4.66%	595	3.05E-05	16	3.91%	500	2.71E-05	24	0.86%	110	5.97E-06
								Total		12,784	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	12,784	14,432	155,344	7.448E-09	5.492E-09	2.6	1.21
PM25_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	12,784	14,396	154,961	7.448E-09	5.492E-09	2.6	1.21
									Total	25,568						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.001375	0.001511		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	147	2.97E-05	9	7.11%	909	2.02E-04	17	7.38%	944	2.09E-04
2	0.42%	53	1.08E-05	10	4.39%	562	1.13E-04	18	8.17%	1045	2.32E-04
3	0.41%	52	1.05E-05	11	4.66%	596	1.20E-04	19	5.70%	728	1.47E-04
4	0.26%	34	6.79E-06	12	5.89%	753	1.52E-04	20	4.27%	546	1.10E-04
5	0.50%	64	1.29E-05	13	6.15%	786	1.59E-04	21	3.26%	417	8.41E-05
6	0.90%	116	2.33E-05	14	6.04%	772	1.56E-04	22	3.30%	422	8.51E-05
7	3.79%	485	9.79E-05	15	7.01%	896	1.81E-04	23	2.46%	314	6.35E-05
8	7.76%	992	2.20E-04	16	7.14%	912	1.84E-04	24	1.86%	238	4.81E-05
								Total		12,784	

2023 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	147	2.96E-05	9	7.11%	909	2.01E-04	17	7.38%	944	2.09E-04
2	0.42%	53	1.07E-05	10	4.39%	562	1.13E-04	18	8.17%	1045	2.31E-04
3	0.41%	52	1.05E-05	11	4.66%	596	1.20E-04	19	5.70%	728	1.47E-04
4	0.26%	34	6.77E-06	12	5.89%	753	1.52E-04	20	4.27%	546	1.10E-04
5	0.50%	64	1.29E-05	13	6.15%	786	1.58E-04	21	3.26%	417	8.39E-05
6	0.90%	116	2.33E-05	14	6.04%	772	1.55E-04	22	3.30%	422	8.49E-05
7	3.79%	485	9.76E-05	15	7.01%	896	1.80E-04	23	2.46%	314	6.33E-05
8	7.76%	992	2.20E-04	16	7.14%	912	1.84E-04	24	1.86%	238	4.80E-05
								Total		12,784	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	12,784	14,432	155,344	1.470E-07	1.084E-07	2.6	1.21
TEXH_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	12,784	14,396	154,961	1.470E-07	1.084E-07	2.6	1.21
									Total	25,568						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.02714	0.03086		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	147	5.86E-04	9	7.11%	909	4.12E-03	17	7.38%	944	4.28E-03
2	0.42%	53	2.13E-04	10	4.39%	562	2.24E-03	18	8.17%	1045	4.73E-03
3	0.41%	52	2.08E-04	11	4.66%	596	2.37E-03	19	5.70%	728	2.90E-03
4	0.26%	34	1.34E-04	12	5.89%	753	3.00E-03	20	4.27%	546	2.18E-03
5	0.50%	64	2.55E-04	13	6.15%	786	3.13E-03	21	3.26%	417	1.66E-03
6	0.90%	116	4.60E-04	14	6.04%	772	3.07E-03	22	3.30%	422	1.68E-03
7	3.79%	485	1.93E-03	15	7.01%	896	3.57E-03	23	2.46%	314	1.25E-03
8	7.76%	992	4.49E-03	16	7.14%	912	3.63E-03	24	1.86%	238	9.49E-04
								Total		12,784	

2023 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	147	5.85E-04	9	7.11%	909	4.11E-03	17	7.38%	944	4.27E-03
2	0.42%	53	2.12E-04	10	4.39%	562	2.23E-03	18	8.17%	1045	4.72E-03
3	0.41%	52	2.07E-04	11	4.66%	596	2.37E-03	19	5.70%	728	2.89E-03
4	0.26%	34	1.34E-04	12	5.89%	753	2.99E-03	20	4.27%	546	2.17E-03
5	0.50%	64	2.54E-04	13	6.15%	786	3.12E-03	21	3.26%	417	1.66E-03
6	0.90%	116	4.59E-04	14	6.04%	772	3.07E-03	22	3.30%	422	1.68E-03
7	3.79%	485	1.93E-03	15	7.01%	896	3.56E-03	23	2.46%	314	1.25E-03
8	7.76%	992	4.48E-03	16	7.14%	912	3.62E-03	24	1.86%	238	9.47E-04
								Total		12,784	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	12,784	14,432	155,344	1.839E-07	1.356E-07	2.6	1.21
TEVAP_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	12,784	14,396	154,961	1.839E-07	1.356E-07	2.6	1.21
									Total	25,568						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle per Hour (g/hour)	1.35761	1.35761		
Emissions per Vehicle per Mile (g/VMT)	0.03394	0.03879		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	147	7.33E-04	9	7.11%	909	5.18E-03	17	7.38%	944	5.37E-03
2	0.42%	53	2.66E-04	10	4.39%	562	2.80E-03	18	8.17%	1045	5.95E-03
3	0.41%	52	2.60E-04	11	4.66%	596	2.97E-03	19	5.70%	728	3.63E-03
4	0.26%	34	1.68E-04	12	5.89%	753	3.75E-03	20	4.27%	546	2.72E-03
5	0.50%	64	3.19E-04	13	6.15%	786	3.92E-03	21	3.26%	417	2.08E-03
6	0.90%	116	5.76E-04	14	6.04%	772	3.84E-03	22	3.30%	422	2.10E-03
7	3.79%	485	2.42E-03	15	7.01%	896	4.47E-03	23	2.46%	314	1.57E-03
8	7.76%	992	5.65E-03	16	7.14%	912	4.54E-03	24	1.86%	238	1.19E-03
								Total		12,784	

2023 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	147	7.32E-04	9	7.11%	909	5.16E-03	17	7.38%	944	5.36E-03
2	0.42%	53	2.65E-04	10	4.39%	562	2.79E-03	18	8.17%	1045	5.93E-03
3	0.41%	52	2.59E-04	11	4.66%	596	2.96E-03	19	5.70%	728	3.62E-03
4	0.26%	34	1.67E-04	12	5.89%	753	3.74E-03	20	4.27%	546	2.71E-03
5	0.50%	64	3.18E-04	13	6.15%	786	3.91E-03	21	3.26%	417	2.07E-03
6	0.90%	116	5.74E-04	14	6.04%	772	3.83E-03	22	3.30%	422	2.10E-03
7	3.79%	485	2.41E-03	15	7.01%	896	4.45E-03	23	2.46%	314	1.56E-03
8	7.76%	992	5.64E-03	16	7.14%	912	4.53E-03	24	1.86%	238	1.18E-03
								Total		12,784	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	12,784	14,432	155,344	1.829E-07	1.349E-07	2.6	1.21
FUG_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	12,784	14,396	154,961	1.829E-07	1.349E-07	2.6	1.21
									Total	25,568						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01486	0.01486		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03377	0.03377		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	147	7.30E-04	9	7.11%	909	4.51E-03	17	7.38%	944	4.68E-03
2	0.42%	53	2.65E-04	10	4.39%	562	2.78E-03	18	8.17%	1045	5.18E-03
3	0.41%	52	2.58E-04	11	4.66%	596	2.96E-03	19	5.70%	728	3.61E-03
4	0.26%	34	1.67E-04	12	5.89%	753	3.73E-03	20	4.27%	546	2.71E-03
5	0.50%	64	3.17E-04	13	6.15%	786	3.90E-03	21	3.26%	417	2.06E-03
6	0.90%	116	5.73E-04	14	6.04%	772	3.83E-03	22	3.30%	422	2.09E-03
7	3.79%	485	2.40E-03	15	7.01%	896	4.44E-03	23	2.46%	314	1.56E-03
8	7.76%	992	4.92E-03	16	7.14%	912	4.52E-03	24	1.86%	238	1.18E-03
								Total		12,784	

2023 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	147	7.28E-04	9	7.11%	909	4.49E-03	17	7.38%	944	4.67E-03
2	0.42%	53	2.64E-04	10	4.39%	562	2.78E-03	18	8.17%	1045	5.17E-03
3	0.41%	52	2.58E-04	11	4.66%	596	2.95E-03	19	5.70%	728	3.60E-03
4	0.26%	34	1.66E-04	12	5.89%	753	3.72E-03	20	4.27%	546	2.70E-03
5	0.50%	64	3.16E-04	13	6.15%	786	3.89E-03	21	3.26%	417	2.06E-03
6	0.90%	116	5.72E-04	14	6.04%	772	3.82E-03	22	3.30%	422	2.08E-03
7	3.79%	485	2.40E-03	15	7.01%	896	4.43E-03	23	2.46%	314	1.55E-03
8	7.76%	992	4.91E-03	16	7.14%	912	4.51E-03	24	1.86%	238	1.18E-03
								Total		12,784	

4300 Stevens Creek Blvd, San Jose - Stevens Creek Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor, 1.5m receptor height (1st floor)

Emission Year	2023
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1st Floor, 1.5 meters
Receptor Distances	At Construction MEI location
Meteorological Conditions	
BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0004	0.0387	0.0485

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0484	0.0465	0.0020

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd Cancer Risk & PM2.5 Impacts at Construction MEI - 1.5 meter receptor height (1st floor)
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2023	10	0.0004	0.0387	0.0485	0.006	0.003	0.0002	0.01
1	1	0 - 1	2023	10	0.0004	0.0387	0.0485	0.072	0.036	0.0027	0.11
2	1	1 - 2	2024	10	0.0004	0.0387	0.0485	0.072	0.036	0.0027	0.11
3	1	2 - 3	2025	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
4	1	3 - 4	2026	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
5	1	4 - 5	2027	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
6	1	5 - 6	2028	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
7	1	6 - 7	2029	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
8	1	7 - 8	2030	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
9	1	8 - 9	2031	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
10	1	9 - 10	2032	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
11	1	10 - 11	2033	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
12	1	11 - 12	2034	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
13	1	12 - 13	2035	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
14	1	13 - 14	2036	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
15	1	14 - 15	2037	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
16	1	15 - 16	2038	3	0.0004	0.0387	0.0485	0.011	0.006	0.0004	0.02
17	1	16-17	2039	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
18	1	17-18	2040	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
19	1	18-19	2041	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
20	1	19-20	2042	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
21	1	20-21	2043	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
22	1	21-22	2044	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
23	1	22-23	2045	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
24	1	23-24	2046	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
25	1	24-25	2047	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
26	1	25-26	2048	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
27	1	26-27	2049	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
28	1	27-28	2050	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
29	1	28-29	2051	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
30	1	29-30	2052	1	0.0004	0.0387	0.0485	0.001	0.001	0.0000	0.00
Total Increased Cancer Risk								0.33	0.164	0.012	**0.50**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0001	0.05	0.05

* Third trimester of pregnancy

Kiely Blvd Traffic Emissions and Health Risk Calculations

Analysis Year = ***2023***

Vehicle Type	2019 Caltrans Vehicles (veh/day)	2023 Vehicles (veh/day)
Total	**14,225**	**14,794**

Increase From 2019	1.04
Vehicles/Direction	**7,397**
Avg Vehicles/Hour/Direction	308

Traffic Data Year = ***2019***

Project Traffic Data - Background Plus Project ADT	AADT Total	Total Truck
Kiely Blvd & Stevens Creek Blvd	14,225	499
Percent of Total Vehicles		3.51%

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	43.7	3.4	Varied	7,397	7,662	82,468	1.410E-09	1.040E-09	6.8	3.16
DPM_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	43.7	3.4	Varied	7,397	7,937	85,435	1.410E-09	1.040E-09	6.8	3.16
									Total	14,794						

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.00035	0.00038		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and DPM Emissions - DPM_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.91%	289	1.01E-05	9	6.50%	481	1.82E-05	17	5.58%	413	1.57E-05
2	2.59%	191	6.71E-06	10	7.36%	544	1.91E-05	18	3.28%	242	9.20E-06
3	2.88%	213	7.46E-06	11	6.33%	468	1.64E-05	19	2.36%	174	6.11E-06
4	3.34%	247	8.65E-06	12	6.84%	506	1.77E-05	20	0.92%	68	2.39E-06
5	2.19%	162	5.67E-06	13	6.15%	455	1.60E-05	21	2.99%	221	7.75E-06
6	3.39%	251	8.80E-06	14	6.15%	455	1.60E-05	22	4.14%	306	1.07E-05
7	5.98%	442	1.55E-05	15	5.23%	387	1.36E-05	23	2.47%	183	6.41E-06
8	4.66%	345	1.31E-05	16	3.91%	289	1.01E-05	24	0.86%	64	2.24E-06
								Total		7,397	

2023 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.91%	289	1.05E-05	9	6.50%	481	1.89E-05	17	5.58%	413	1.62E-05
2	2.59%	191	6.95E-06	10	7.36%	544	1.98E-05	18	3.28%	242	9.53E-06
3	2.88%	213	7.72E-06	11	6.33%	468	1.70E-05	19	2.36%	174	6.33E-06
4	3.34%	247	8.96E-06	12	6.84%	506	1.84E-05	20	0.92%	68	2.47E-06
5	2.19%	162	5.87E-06	13	6.15%	455	1.65E-05	21	2.99%	221	8.03E-06
6	3.39%	251	9.11E-06	14	6.15%	455	1.65E-05	22	4.14%	306	1.11E-05
7	5.98%	442	1.61E-05	15	5.23%	387	1.41E-05	23	2.47%	183	6.64E-06
8	4.66%	345	1.35E-05	16	3.91%	289	1.05E-05	24	0.86%	64	2.32E-06
								Total		7,397	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,397	7,662	82,468	7.052E-09	5.199E-09	2.6	1.21
PM25_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,397	7,937	85,435	7.052E-09	5.199E-09	2.6	1.21
									Total	14,794						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.001765	0.002194		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and PM2.5 Emissions - PM25_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	85	1.49E-05	9	7.11%	526	1.15E-04	17	7.38%	546	1.19E-04
2	0.42%	31	5.41E-06	10	4.39%	325	5.70E-05	18	8.17%	604	1.32E-04
3	0.41%	30	5.29E-06	11	4.66%	345	6.05E-05	19	5.70%	421	7.39E-05
4	0.26%	19	3.41E-06	12	5.89%	436	7.64E-05	20	4.27%	316	5.54E-05
5	0.50%	37	6.49E-06	13	6.15%	455	7.98E-05	21	3.26%	241	4.23E-05
6	0.90%	67	1.17E-05	14	6.04%	447	7.83E-05	22	3.30%	244	4.28E-05
7	3.79%	281	4.92E-05	15	7.01%	519	9.09E-05	23	2.46%	182	3.19E-05
8	7.76%	574	1.25E-04	16	7.14%	528	9.25E-05	24	1.86%	138	2.42E-05
								Total		7,397	

2023 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	85	1.55E-05	9	7.11%	526	1.19E-04	17	7.38%	546	1.23E-04
2	0.42%	31	5.61E-06	10	4.39%	325	5.90E-05	18	8.17%	604	1.36E-04
3	0.41%	30	5.48E-06	11	4.66%	345	6.26E-05	19	5.70%	421	7.65E-05
4	0.26%	19	3.54E-06	12	5.89%	436	7.91E-05	20	4.27%	316	5.74E-05
5	0.50%	37	6.72E-06	13	6.15%	455	8.26E-05	21	3.26%	241	4.38E-05
6	0.90%	67	1.21E-05	14	6.04%	447	8.11E-05	22	3.30%	244	4.43E-05
7	3.79%	281	5.10E-05	15	7.01%	519	9.42E-05	23	2.46%	182	3.30E-05
8	7.76%	574	1.30E-04	16	7.14%	528	9.58E-05	24	1.86%	138	2.50E-05
								Total		7,397	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,397	7,662	82,468	1.472E-07	1.085E-07	2.6	1.21
TEXH_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,397	7,937	85,435	1.472E-07	1.085E-07	2.6	1.21
									Total	14,794						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.03684	0.04618		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	85	3.12E-04	9	7.11%	526	2.41E-03	17	7.38%	546	2.51E-03
2	0.42%	31	1.13E-04	10	4.39%	325	1.19E-03	18	8.17%	604	2.77E-03
3	0.41%	30	1.10E-04	11	4.66%	345	1.26E-03	19	5.70%	421	1.54E-03
4	0.26%	19	7.12E-05	12	5.89%	436	1.59E-03	20	4.27%	316	1.16E-03
5	0.50%	37	1.35E-04	13	6.15%	455	1.66E-03	21	3.26%	241	8.82E-04
6	0.90%	67	2.45E-04	14	6.04%	447	1.63E-03	22	3.30%	244	8.93E-04
7	3.79%	281	1.03E-03	15	7.01%	519	1.90E-03	23	2.46%	182	6.66E-04
8	7.76%	574	2.63E-03	16	7.14%	528	1.93E-03	24	1.86%	138	5.04E-04
								Total		7,397	

2023 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	85	3.23E-04	9	7.11%	526	2.50E-03	17	7.38%	546	2.60E-03
2	0.42%	31	1.17E-04	10	4.39%	325	1.23E-03	18	8.17%	604	2.87E-03
3	0.41%	30	1.14E-04	11	4.66%	345	1.31E-03	19	5.70%	421	1.60E-03
4	0.26%	19	7.38E-05	12	5.89%	436	1.65E-03	20	4.27%	316	1.20E-03
5	0.50%	37	1.40E-04	13	6.15%	455	1.72E-03	21	3.26%	241	9.14E-04
6	0.90%	67	2.54E-04	14	6.04%	447	1.69E-03	22	3.30%	244	9.25E-04
7	3.79%	281	1.06E-03	15	7.01%	519	1.97E-03	23	2.46%	182	6.90E-04
8	7.76%	574	2.73E-03	16	7.14%	528	2.00E-03	24	1.86%	138	5.23E-04
								Total		7,397	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,397	7,662	82,468	1.808E-07	1.333E-07	2.6	1.21
TEVAP_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,397	7,937	85,435	1.808E-07	1.333E-07	2.6	1.21
									Total	14,794						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle per Hour (g/hour)	1.35761	1.35761		
Emissions per Vehicle per Mile (g/VMT)	0.04525	0.05430		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	85	3.83E-04	9	7.11%	526	2.84E-03	17	7.38%	546	2.95E-03
2	0.42%	31	1.39E-04	10	4.39%	325	1.46E-03	18	8.17%	604	3.26E-03
3	0.41%	30	1.36E-04	11	4.66%	345	1.55E-03	19	5.70%	421	1.89E-03
4	0.26%	19	8.75E-05	12	5.89%	436	1.96E-03	20	4.27%	316	1.42E-03
5	0.50%	37	1.66E-04	13	6.15%	455	2.05E-03	21	3.26%	241	1.08E-03
6	0.90%	67	3.01E-04	14	6.04%	447	2.01E-03	22	3.30%	244	1.10E-03
7	3.79%	281	1.26E-03	15	7.01%	519	2.33E-03	23	2.46%	182	8.18E-04
8	7.76%	574	3.10E-03	16	7.14%	528	2.37E-03	24	1.86%	138	6.20E-04
								Total		7,397	

2023 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	85	3.97E-04	9	7.11%	526	2.94E-03	17	7.38%	546	3.05E-03
2	0.42%	31	1.44E-04	10	4.39%	325	1.51E-03	18	8.17%	604	3.38E-03
3	0.41%	30	1.40E-04	11	4.66%	345	1.61E-03	19	5.70%	421	1.96E-03
4	0.26%	19	9.06E-05	12	5.89%	436	2.03E-03	20	4.27%	316	1.47E-03
5	0.50%	37	1.72E-04	13	6.15%	455	2.12E-03	21	3.26%	241	1.12E-03
6	0.90%	67	3.11E-04	14	6.04%	447	2.08E-03	22	3.30%	244	1.14E-03
7	3.79%	281	1.31E-03	15	7.01%	519	2.42E-03	23	2.46%	182	8.47E-04
8	7.76%	574	3.21E-03	16	7.14%	528	2.46E-03	24	1.86%	138	6.42E-04
								Total		7,397	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2023

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,397	7,662	82,468	1.349E-07	9.948E-08	2.6	1.21
FUG_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,397	7,937	85,435	1.349E-07	9.948E-08	2.6	1.21
									Total	14,794						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681	0.01681		
Road Dust - Emissions per Vehicle (g/VMT)	0.01486	0.01486		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03377	0.03377		

Emisson Factors from CT-EMFAC2017

2023 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	85	2.86E-04	9	7.11%	526	1.76E-03	17	7.38%	546	1.83E-03
2	0.42%	31	1.04E-04	10	4.39%	325	1.09E-03	18	8.17%	604	2.03E-03
3	0.41%	30	1.01E-04	11	4.66%	345	1.16E-03	19	5.70%	421	1.41E-03
4	0.26%	19	6.53E-05	12	5.89%	436	1.46E-03	20	4.27%	316	1.06E-03
5	0.50%	37	1.24E-04	13	6.15%	455	1.53E-03	21	3.26%	241	8.09E-04
6	0.90%	67	2.24E-04	14	6.04%	447	1.50E-03	22	3.30%	244	8.18E-04
7	3.79%	281	9.41E-04	15	7.01%	519	1.74E-03	23	2.46%	182	6.10E-04
8	7.76%	574	1.93E-03	16	7.14%	528	1.77E-03	24	1.86%	138	4.62E-04
								Total		7,397	

2023 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	85	2.96E-04	9	7.11%	526	1.83E-03	17	7.38%	546	1.90E-03
2	0.42%	31	1.07E-04	10	4.39%	325	1.13E-03	18	8.17%	604	2.10E-03
3	0.41%	30	1.05E-04	11	4.66%	345	1.20E-03	19	5.70%	421	1.46E-03
4	0.26%	19	6.76E-05	12	5.89%	436	1.51E-03	20	4.27%	316	1.10E-03
5	0.50%	37	1.29E-04	13	6.15%	455	1.58E-03	21	3.26%	241	8.38E-04
6	0.90%	67	2.32E-04	14	6.04%	447	1.55E-03	22	3.30%	244	8.48E-04
7	3.79%	281	9.75E-04	15	7.01%	519	1.80E-03	23	2.46%	182	6.32E-04
8	7.76%	574	2.00E-03	16	7.14%	528	1.83E-03	24	1.86%	138	4.79E-04
								Total		7,397	

4300 Stevens Creek Blvd, San Jose - Kiely Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor, 1.5m receptor height (1st floor)

Emission Year	2023
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1st Floor, 1.5 meters
Receptor Distances	At Construction MEI location
Meteorological Conditions	
BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0001	0.0048	0.0059

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0043	0.0041	0.0002

4300 Stevens Creek Blvd, San Jose, CA - Kiely Blvd Cancer Risk & PM2.5 Impacts at Construction MEI - 1.5 meter receptor height (1st floor)
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2023	10	0.0001	0.0048	0.0059	0.001	0.000	0.0000	0.00
1	1	0 - 1	2023	10	0.0001	0.0048	0.0059	0.011	0.005	0.0003	0.02
2	1	1 - 2	2024	10	0.0001	0.0048	0.0059	0.011	0.005	0.0003	0.02
3	1	2 - 3	2025	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
4	1	3 - 4	2026	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
5	1	4 - 5	2027	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
6	1	5 - 6	2028	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
7	1	6 - 7	2029	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
8	1	7 - 8	2030	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
9	1	8 - 9	2031	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
10	1	9 - 10	2032	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
11	1	10 - 11	2033	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
12	1	11 - 12	2034	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
13	1	12 - 13	2035	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
14	1	13 - 14	2036	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
15	1	14 - 15	2037	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
16	1	15 - 16	2038	3	0.0001	0.0048	0.0059	0.002	0.001	0.0001	0.00
17	1	16-17	2039	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
18	1	17-18	2040	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
19	1	18-19	2041	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
20	1	19-20	2042	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
21	1	20-21	2043	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
22	1	21-22	2044	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
23	1	22-23	2045	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
24	1	23-24	2046	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
25	1	24-25	2047	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
26	1	25-26	2048	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
27	1	26-27	2049	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
28	1	27-28	2050	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
29	1	28-29	2051	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
30	1	29-30	2052	1	0.0001	0.0048	0.0059	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.05	0.021	0.001	**0.07**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.004	0.004

* Third trimester of pregnancy

CT-EMFAC2017 Emissions Factors for Santa Clara County 2026

File Name: 4300 SCB - Santa Clara (SF) - 2026 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 12/3/2021 15:59
Area: Santa Clara (SF)
Analysis Year: 2026
Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.015	0.508	0.492
Truck 2	0.02	0.935	0.049
Non-Truck	0.965	0.015	0.949

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
PM2.5	0.008121	0.005263	0.003569	0.002552	0.001935	0.001561	0.001341	0.001228	0.001194
TOG	0.164195	0.107707	0.072399	0.051278	0.038871	0.031092	0.026106	0.02299	0.021228
Diesel PM	0.000735	0.000612	0.000478	0.000385	0.000334	0.000314	0.000317	0.000341	0.000385

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

Pollutant Name	Emission Factor
TOG	1.210741

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	0.016799

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

Pollutant Name	Emission Factor
PM2.5	0.014818

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

Stevens Creek Blvd Traffic Emissions and Health Risk Calculations

Analysis Year = ***2026***

Vehicle Type	2019 Caltrans Vehicles (veh/day)	2026 Vehicles (veh/day)
Total	**24,585**	**26,306**

Increase From 2019	1.07
Vehicles/Direction	**13,153**
Avg Vehicles/Hour/Direction	548

Traffic Data Year = ***2019***

Project Traffic Data - Background Plus Project ADT	AADT Total	Total Truck
Kiely Blvd & Stevens Creek Blvd	24,585	863
	Percent of Total Vehicles	3.51%

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	55.7	3.4	Varied	13,153	14,432	155,344	1.900E-09	1.401E-09	6.8	3.16
DPM_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	55.7	3.4	Varied	13,153	14,396	154,961	1.900E-09	1.401E-09	6.8	3.16
									Total	26,306						

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.00034	0.00032		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	523	2.62E-05	9	6.44%	847	3.94E-05	17	5.53%	727	3.38E-05
2	2.67%	351	1.76E-05	10	7.40%	973	4.87E-05	18	3.14%	413	1.92E-05
3	2.84%	374	1.87E-05	11	6.32%	831	4.16E-05	19	2.35%	309	1.54E-05
4	3.30%	433	2.17E-05	12	6.88%	905	4.53E-05	20	0.86%	113	5.67E-06
5	2.16%	284	1.42E-05	13	6.27%	824	4.13E-05	21	3.08%	405	2.03E-05
6	3.30%	433	2.17E-05	14	6.21%	817	4.09E-05	22	4.21%	554	2.77E-05
7	6.03%	793	3.97E-05	15	5.13%	675	3.38E-05	23	2.62%	345	1.73E-05
8	4.56%	600	2.79E-05	16	3.88%	510	2.55E-05	24	0.85%	112	5.61E-06
								Total		13,153	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	523	2.61E-05	9	6.44%	847	3.93E-05	17	5.53%	727	3.37E-05
2	2.67%	351	1.75E-05	10	7.40%	973	4.86E-05	18	3.14%	413	1.92E-05
3	2.84%	374	1.87E-05	11	6.32%	831	4.15E-05	19	2.35%	309	1.54E-05
4	3.30%	433	2.16E-05	12	6.88%	905	4.52E-05	20	0.86%	113	5.65E-06
5	2.16%	284	1.42E-05	13	6.27%	824	4.12E-05	21	3.08%	405	2.02E-05
6	3.30%	433	2.16E-05	14	6.21%	817	4.08E-05	22	4.21%	554	2.77E-05
7	6.03%	793	3.96E-05	15	5.13%	675	3.37E-05	23	2.62%	345	1.72E-05
8	4.56%	600	2.79E-05	16	3.88%	510	2.55E-05	24	0.85%	112	5.60E-06
								Total		13,153	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	13,153	14,432	155,344	6.844E-09	5.046E-09	2.6	1.21
PM25_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	13,153	14,396	154,961	6.844E-09	5.046E-09	2.6	1.21
									Total	26,306						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.001228	0.001341		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM25_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	151	2.72E-05	9	7.11%	935	1.84E-04	17	7.38%	971	1.91E-04
2	0.42%	55	9.97E-06	10	4.39%	577	1.04E-04	18	8.18%	1075	2.12E-04
3	0.41%	53	9.61E-06	11	4.66%	613	1.11E-04	19	5.70%	749	1.35E-04
4	0.26%	34	6.18E-06	12	5.89%	775	1.40E-04	20	4.27%	562	1.01E-04
5	0.50%	66	1.18E-05	13	6.15%	809	1.46E-04	21	3.26%	429	7.72E-05
6	0.90%	119	2.14E-05	14	6.04%	794	1.43E-04	22	3.30%	434	7.82E-05
7	3.79%	498	8.98E-05	15	7.01%	922	1.66E-04	23	2.46%	324	5.84E-05
8	7.76%	1021	2.01E-04	16	7.14%	939	1.69E-04	24	1.87%	246	4.43E-05
								Total		13,153	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_WB_SCB

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	151	2.72E-05	9	7.11%	935	1.84E-04	17	7.38%	971	1.91E-04
2	0.42%	55	9.95E-06	10	4.39%	577	1.04E-04	18	8.18%	1075	2.11E-04
3	0.41%	53	9.59E-06	11	4.66%	613	1.10E-04	19	5.70%	749	1.35E-04
4	0.26%	34	6.17E-06	12	5.89%	775	1.39E-04	20	4.27%	562	1.01E-04
5	0.50%	66	1.18E-05	13	6.15%	809	1.45E-04	21	3.26%	429	7.70E-05
6	0.90%	119	2.14E-05	14	6.04%	794	1.43E-04	22	3.30%	434	7.80E-05
7	3.79%	498	8.96E-05	15	7.01%	922	1.66E-04	23	2.46%	324	5.82E-05
8	7.76%	1021	2.00E-04	16	7.14%	939	1.69E-04	24	1.87%	246	4.41E-05
								Total		13,153	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	13,153	14,432	155,344	1.281E-07	9.447E-08	2.6	1.21
TEXH_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	13,153	14,396	154,961	1.281E-07	9.447E-08	2.6	1.21
									Total	26,306						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle (g/VMT)	0.02299	0.02611		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	151	5.10E-04	9	7.11%	935	3.58E-03	17	7.38%	971	3.72E-03
2	0.42%	55	1.87E-04	10	4.39%	577	1.95E-03	18	8.18%	1075	4.12E-03
3	0.41%	53	1.80E-04	11	4.66%	613	2.07E-03	19	5.70%	749	2.53E-03
4	0.26%	34	1.16E-04	12	5.89%	775	2.61E-03	20	4.27%	562	1.90E-03
5	0.50%	66	2.21E-04	13	6.15%	809	2.73E-03	21	3.26%	429	1.45E-03
6	0.90%	119	4.01E-04	14	6.04%	794	2.68E-03	22	3.30%	434	1.46E-03
7	3.79%	498	1.68E-03	15	7.01%	922	3.11E-03	23	2.46%	324	1.09E-03
8	7.76%	1021	3.91E-03	16	7.14%	939	3.17E-03	24	1.87%	246	8.29E-04
								Total		13,153	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	151	5.09E-04	9	7.11%	935	3.58E-03	17	7.38%	971	3.71E-03
2	0.42%	55	1.86E-04	10	4.39%	577	1.94E-03	18	8.18%	1075	4.11E-03
3	0.41%	53	1.79E-04	11	4.66%	613	2.06E-03	19	5.70%	749	2.52E-03
4	0.26%	34	1.15E-04	12	5.89%	775	2.61E-03	20	4.27%	562	1.89E-03
5	0.50%	66	2.21E-04	13	6.15%	809	2.72E-03	21	3.26%	429	1.44E-03
6	0.90%	119	4.00E-04	14	6.04%	794	2.67E-03	22	3.30%	434	1.46E-03
7	3.79%	498	1.68E-03	15	7.01%	922	3.10E-03	23	2.46%	324	1.09E-03
8	7.76%	1021	3.90E-03	16	7.14%	939	3.16E-03	24	1.87%	246	8.27E-04
								Total		13,153	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	13,153	14,432	155,344	1.687E-07	1.244E-07	2.6	1.21
TEVAP_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	13,153	14,396	154,961	1.687E-07	1.244E-07	2.6	1.21
									Total	26,306						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Emissions per Vehicle per Hour (g/hour)	1.21074	1.21074		
Emissions per Vehicle per Mile (g/VMT)	0.03027	0.03459		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_SCB

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	151	6.72E-04	9	7.11%	935	4.75E-03	17	7.38%	971	4.93E-03
2	0.42%	55	2.46E-04	10	4.39%	577	2.56E-03	18	8.18%	1075	5.46E-03
3	0.41%	53	2.37E-04	11	4.66%	613	2.72E-03	19	5.70%	749	3.33E-03
4	0.26%	34	1.52E-04	12	5.89%	775	3.44E-03	20	4.27%	562	2.50E-03
5	0.50%	66	2.91E-04	13	6.15%	809	3.60E-03	21	3.26%	429	1.90E-03
6	0.90%	119	5.28E-04	14	6.04%	794	3.53E-03	22	3.30%	434	1.93E-03
7	3.79%	498	2.21E-03	15	7.01%	922	4.10E-03	23	2.46%	324	1.44E-03
8	7.76%	1021	5.18E-03	16	7.14%	939	4.17E-03	24	1.87%	246	1.09E-03
								Total		13,153	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	151	6.70E-04	9	7.11%	935	4.74E-03	17	7.38%	971	4.92E-03
2	0.42%	55	2.45E-04	10	4.39%	577	2.56E-03	18	8.18%	1075	5.45E-03
3	0.41%	53	2.36E-04	11	4.66%	613	2.72E-03	19	5.70%	749	3.32E-03
4	0.26%	34	1.52E-04	12	5.89%	775	3.43E-03	20	4.27%	562	2.49E-03
5	0.50%	66	2.91E-04	13	6.15%	809	3.59E-03	21	3.26%	429	1.90E-03
6	0.90%	119	5.27E-04	14	6.04%	794	3.52E-03	22	3.30%	434	1.92E-03
7	3.79%	498	2.21E-03	15	7.01%	922	4.09E-03	23	2.46%	324	1.44E-03
8	7.76%	1021	5.17E-03	16	7.14%	939	4.16E-03	24	1.87%	246	1.09E-03
								Total		13,153	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Steven Creek Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2026**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_EB_SCB	Steven Creek Blvd Eastbound	EB	3	850.3	0.53	17.0	56	1.3	Varied	13,153	14,432	155,344	1.880E-07	1.386E-07	2.6	1.21
FUG_WB_SCB	Steven Creek Blvd Westbound	WB	3	848.2	0.53	17.0	56	1.3	Varied	13,153	14,396	154,961	1.880E-07	1.386E-07	2.6	1.21
									Total	26,306						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40	35		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01680	0.01680		
Road Dust - Emissions per Vehicle (g/VMT)	0.01482	0.01482		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03373	0.03373		

Emisson Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	151	7.48E-04	9	7.11%	935	4.63E-03	17	7.38%	971	4.81E-03
2	0.42%	55	2.74E-04	10	4.39%	577	2.86E-03	18	8.18%	1075	5.32E-03
3	0.41%	53	2.64E-04	11	4.66%	613	3.04E-03	19	5.70%	749	3.71E-03
4	0.26%	34	1.70E-04	12	5.89%	775	3.83E-03	20	4.27%	562	2.78E-03
5	0.50%	66	3.25E-04	13	6.15%	809	4.01E-03	21	3.26%	429	2.12E-03
6	0.90%	119	5.89E-04	14	6.04%	794	3.93E-03	22	3.30%	434	2.15E-03
7	3.79%	498	2.47E-03	15	7.01%	922	4.57E-03	23	2.46%	324	1.60E-03
8	7.76%	1021	5.05E-03	16	7.14%	939	4.65E-03	24	1.87%	246	1.22E-03
								Total		13,153	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	151	7.47E-04	9	7.11%	935	4.62E-03	17	7.38%	971	4.80E-03
2	0.42%	55	2.73E-04	10	4.39%	577	2.85E-03	18	8.18%	1075	5.31E-03
3	0.41%	53	2.63E-04	11	4.66%	613	3.03E-03	19	5.70%	749	3.70E-03
4	0.26%	34	1.69E-04	12	5.89%	775	3.82E-03	20	4.27%	562	2.77E-03
5	0.50%	66	3.24E-04	13	6.15%	809	4.00E-03	21	3.26%	429	2.12E-03
6	0.90%	119	5.87E-04	14	6.04%	794	3.92E-03	22	3.30%	434	2.14E-03
7	3.79%	498	2.46E-03	15	7.01%	922	4.55E-03	23	2.46%	324	1.60E-03
8	7.76%	1021	5.04E-03	16	7.14%	939	4.64E-03	24	1.87%	246	1.21E-03
								Total		13,153	

4300 Stevens Creek Blvd, San Jose - Stevens Creek Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st & 2nd Levels of Residential Receptors
- Building A at 4m (2nd Fl) and 7.6m (3rd Fl) receptor heights
- Buildings B & C at 7.6m (3rd Fl) and 11m (4th Fl) receptor heights

Emission Year	2026
Receptor Information	Maximum On-Site Receptor
Number of Receptors	278
Receptor Height	1st & 2nd Level of Residential Receptors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions	
BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2013-2017	0.0012	0.1053	0.1389	1st Level of Res Receps
2013-2017	0.0010	0.0749	0.0988	2nd Level of Res Receps

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2013-2017	0.1547	0.1491	0.0056	1st Level of Res Receps
2013-2017	0.1100	0.1061	0.0040	2nd Level of Res Receps

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd Cancer Risk & PM2.5
Impacts at On-Site 1 Level of Residential Receptors - Bld A at 4m (2nd Fl), Bld B & C at 7.6m (3rd Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

	Infant/Child			Adult
Age --> / Parameter	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
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0012	0.1053	0.1389	0.016	0.008	0.0006	0.03
1	1	0 - 1	2026	10	0.0012	0.1053	0.1389	0.197	0.099	0.0077	0.30
2	1	1 - 2	2027	10	0.0012	0.1053	0.1389	0.197	0.099	0.0077	0.30
3	1	2 - 3	2028	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
4	1	3 - 4	2029	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
5	1	4 - 5	2030	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
6	1	5 - 6	2031	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
7	1	6 - 7	2032	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
8	1	7 - 8	2033	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
9	1	8 - 9	2034	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
10	1	9 - 10	2035	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
11	1	10 - 11	2036	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
12	1	11 - 12	2037	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
13	1	12 - 13	2038	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
14	1	13 - 14	2039	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
15	1	14 - 15	2040	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
16	1	15 - 16	2041	3	0.0012	0.1053	0.1389	0.031	0.016	0.0012	0.05
17	1	16-17	2042	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
18	1	17-18	2043	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
19	1	18-19	2044	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
20	1	19-20	2045	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
21	1	20-21	2046	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
22	1	21-22	2047	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
23	1	22-23	2048	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
24	1	23-24	2049	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
25	1	24-25	2050	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
26	1	25-26	2051	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
27	1	26-27	2052	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
28	1	27-28	2053	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
29	1	28-29	2054	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
30	1	29-30	2055	1	0.0012	0.1053	0.1389	0.003	0.002	0.0001	0.01
Total Increased Cancer Risk								0.89	0.447	0.035	**1.38**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0002	0.15	0.15

* Third trimester of pregnancy

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd Cancer Risk & PM2.5
Impacts at On-Site 2 Level of Residential Receptors - Bld A at 7.6m (3rd Fl), Bld B & C at 11m (4th Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0010	0.0749	0.0988	0.013	0.006	0.0005	0.02
1	1	0 - 1	2026	10	0.0010	0.0749	0.0988	0.156	0.070	0.0055	0.23
2	1	1 - 2	2027	10	0.0010	0.0749	0.0988	0.156	0.070	0.0055	0.23
3	1	2 - 3	2028	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
4	1	3 - 4	2029	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
5	1	4 - 5	2030	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
6	1	5 - 6	2031	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
7	1	6 - 7	2032	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
8	1	7 - 8	2033	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
9	1	8 - 9	2034	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
10	1	9 - 10	2035	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
11	1	10 - 11	2036	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
12	1	11 - 12	2037	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
13	1	12 - 13	2038	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
14	1	13 - 14	2039	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
15	1	14 - 15	2040	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
16	1	15 - 16	2041	3	0.0010	0.0749	0.0988	0.025	0.011	0.0009	0.04
17	1	16-17	2042	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
18	1	17-18	2043	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
19	1	18-19	2044	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
20	1	19-20	2045	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
21	1	20-21	2046	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
22	1	21-22	2047	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
23	1	22-23	2048	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
24	1	23-24	2049	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
25	1	24-25	2050	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
26	1	25-26	2051	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
27	1	26-27	2052	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
28	1	27-28	2053	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
29	1	28-29	2054	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
30	1	29-30	2055	1	0.0010	0.0749	0.0988	0.003	0.001	0.0001	0.00
Total Increased Cancer Risk								0.71	0.318	0.025	**1.05**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0002	0.11	0.11

* Third trimester of pregnancy

Kiely Blvd Traffic Emissions and Health Risk Calculations

Analysis Year = ***2026***

Vehicle Type	2019 Caltrans Vehicles (veh/day)	2026 Vehicles (veh/day)
Total	**14,225**	**15,221**

Increase From 2019	1.07
Vehicles/Direction	**7,610**
Avg Vehicles/Hour/Direction	317

Traffic Data Year = ***2019***

Project Traffic Data - Background Plus Project ADT	AADT Total	Total Truck
Kiely Blvd & Stevens Creek Blvd	14,225	499
Percent of Total Vehicles		3.51%

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	43.7	3.4	Varied	7,610	7,662	82,468	1.291E-09	9.517E-10	6.8	3.16
DPM_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	43.7	3.4	Varied	7,610	7,937	85,435	1.291E-09	9.517E-10	6.8	3.16
									Total	15,221						

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.00031	0.00033		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	303	9.44E-06	9	6.44%	490	1.63E-05	17	5.53%	421	1.40E-05
2	2.67%	203	6.34E-06	10	7.40%	563	1.76E-05	18	3.14%	239	7.93E-06
3	2.84%	216	6.74E-06	11	6.32%	481	1.50E-05	19	2.35%	179	5.57E-06
4	3.30%	251	7.82E-06	12	6.88%	524	1.63E-05	20	0.86%	66	2.04E-06
5	2.16%	164	5.12E-06	13	6.27%	477	1.49E-05	21	3.08%	234	7.30E-06
6	3.30%	251	7.82E-06	14	6.21%	473	1.47E-05	22	4.21%	321	1.00E-05
7	6.03%	459	1.43E-05	15	5.13%	390	1.22E-05	23	2.62%	200	6.22E-06
8	4.56%	347	1.15E-05	16	3.88%	295	9.21E-06	24	0.85%	65	2.02E-06
								Total		7,610	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	303	9.78E-06	9	6.44%	490	1.68E-05	17	5.53%	421	1.45E-05
2	2.67%	203	6.57E-06	10	7.40%	563	1.82E-05	18	3.14%	239	8.22E-06
3	2.84%	216	6.98E-06	11	6.32%	481	1.55E-05	19	2.35%	179	5.77E-06
4	3.30%	251	8.10E-06	12	6.88%	524	1.69E-05	20	0.86%	66	2.12E-06
5	2.16%	164	5.31E-06	13	6.27%	477	1.54E-05	21	3.08%	234	7.57E-06
6	3.30%	251	8.10E-06	14	6.21%	473	1.53E-05	22	4.21%	321	1.04E-05
7	6.03%	459	1.48E-05	15	5.13%	390	1.26E-05	23	2.62%	200	6.45E-06
8	4.56%	347	1.19E-05	16	3.88%	295	9.54E-06	24	0.85%	65	2.10E-06
								Total		7,610	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM25_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,610	7,662	82,468	6.417E-09	4.731E-09	2.6	1.21
PM25_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,610	7,937	85,435	6.417E-09	4.731E-09	2.6	1.21
									Total	15,221						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.001561	0.001935		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM25_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	87	1.36E-05	9	7.11%	541	1.04E-04	17	7.38%	562	1.08E-04
2	0.42%	32	4.96E-06	10	4.39%	334	5.18E-05	18	8.18%	622	1.20E-04
3	0.41%	31	4.78E-06	11	4.66%	355	5.50E-05	19	5.70%	434	6.72E-05
4	0.26%	20	3.08E-06	12	5.89%	448	6.95E-05	20	4.27%	325	5.04E-05
5	0.50%	38	5.88E-06	13	6.15%	468	7.26E-05	21	3.26%	248	3.84E-05
6	0.90%	69	1.07E-05	14	6.04%	459	7.12E-05	22	3.30%	251	3.89E-05
7	3.79%	288	4.47E-05	15	7.01%	534	8.27E-05	23	2.46%	187	2.91E-05
8	7.76%	591	1.14E-04	16	7.14%	543	8.42E-05	24	1.87%	142	2.20E-05
								Total		7,610	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_SB_KIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	87	1.41E-05	9	7.11%	541	1.08E-04	17	7.38%	562	1.12E-04
2	0.42%	32	5.14E-06	10	4.39%	334	5.36E-05	18	8.18%	622	1.24E-04
3	0.41%	31	4.95E-06	11	4.66%	355	5.70E-05	19	5.70%	434	6.96E-05
4	0.26%	20	3.19E-06	12	5.89%	448	7.20E-05	20	4.27%	325	5.22E-05
5	0.50%	38	6.09E-06	13	6.15%	468	7.52E-05	21	3.26%	248	3.98E-05
6	0.90%	69	1.10E-05	14	6.04%	459	7.38E-05	22	3.30%	251	4.03E-05
7	3.79%	288	4.63E-05	15	7.01%	534	8.57E-05	23	2.46%	187	3.01E-05
8	7.76%	591	1.18E-04	16	7.14%	543	8.73E-05	24	1.87%	142	2.28E-05
								Total		7,610	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,610	7,662	82,468	1.278E-07	9.423E-08	2.6	1.21
TEXH_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,610	7,937	85,435	1.278E-07	9.423E-08	2.6	1.21
									Total	15,221						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle (g/VMT)	0.03109	0.03887		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	87	2.70E-04	9	7.11%	541	2.09E-03	17	7.38%	562	2.17E-03
2	0.42%	32	9.88E-05	10	4.39%	334	1.03E-03	18	8.18%	622	2.40E-03
3	0.41%	31	9.53E-05	11	4.66%	355	1.10E-03	19	5.70%	434	1.34E-03
4	0.26%	20	6.13E-05	12	5.89%	448	1.38E-03	20	4.27%	325	1.00E-03
5	0.50%	38	1.17E-04	13	6.15%	468	1.45E-03	21	3.26%	248	7.66E-04
6	0.90%	69	2.12E-04	14	6.04%	459	1.42E-03	22	3.30%	251	7.76E-04
7	3.79%	288	8.90E-04	15	7.01%	534	1.65E-03	23	2.46%	187	5.79E-04
8	7.76%	591	2.28E-03	16	7.14%	543	1.68E-03	24	1.87%	142	4.39E-04
								Total		7,610	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	87	2.80E-04	9	7.11%	541	2.16E-03	17	7.38%	562	2.25E-03
2	0.42%	32	1.02E-04	10	4.39%	334	1.07E-03	18	8.18%	622	2.49E-03
3	0.41%	31	9.87E-05	11	4.66%	355	1.14E-03	19	5.70%	434	1.39E-03
4	0.26%	20	6.35E-05	12	5.89%	448	1.43E-03	20	4.27%	325	1.04E-03
5	0.50%	38	1.21E-04	13	6.15%	468	1.50E-03	21	3.26%	248	7.93E-04
6	0.90%	69	2.20E-04	14	6.04%	459	1.47E-03	22	3.30%	251	8.03E-04
7	3.79%	288	9.22E-04	15	7.01%	534	1.71E-03	23	2.46%	187	6.00E-04
8	7.76%	591	2.36E-03	16	7.14%	543	1.74E-03	24	1.87%	142	4.55E-04
								Total		7,610	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,610	7,662	82,468	1.659E-07	1.223E-07	2.6	1.21
TEVAP_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,610	7,937	85,435	1.659E-07	1.223E-07	2.6	1.21
									Total	15,221						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Emissions per Vehicle per Hour (g/hour)	1.21074	1.21074		
Emissions per Vehicle per Mile (g/VMT)	0.04036	0.04843		

Emisson Factors from CT-EMFAC2017

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_KIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	87	3.51E-04	9	7.11%	541	2.60E-03	17	7.38%	562	2.70E-03
2	0.42%	32	1.28E-04	10	4.39%	334	1.34E-03	18	8.18%	622	2.99E-03
3	0.41%	31	1.24E-04	11	4.66%	355	1.42E-03	19	5.70%	434	1.74E-03
4	0.26%	20	7.95E-05	12	5.89%	448	1.80E-03	20	4.27%	325	1.30E-03
5	0.50%	38	1.52E-04	13	6.15%	468	1.88E-03	21	3.26%	248	9.94E-04
6	0.90%	69	2.76E-04	14	6.04%	459	1.84E-03	22	3.30%	251	1.01E-03
7	3.79%	288	1.16E-03	15	7.01%	534	2.14E-03	23	2.46%	187	7.51E-04
8	7.76%	591	2.84E-03	16	7.14%	543	2.18E-03	24	1.87%	142	5.70E-04
								Total		7,610	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	87	3.63E-04	9	7.11%	541	2.70E-03	17	7.38%	562	2.80E-03
2	0.42%	32	1.33E-04	10	4.39%	334	1.39E-03	18	8.18%	622	3.10E-03
3	0.41%	31	1.28E-04	11	4.66%	355	1.47E-03	19	5.70%	434	1.80E-03
4	0.26%	20	8.24E-05	12	5.89%	448	1.86E-03	20	4.27%	325	1.35E-03
5	0.50%	38	1.58E-04	13	6.15%	468	1.94E-03	21	3.26%	248	1.03E-03
6	0.90%	69	2.86E-04	14	6.04%	459	1.91E-03	22	3.30%	251	1.04E-03
7	3.79%	288	1.20E-03	15	7.01%	534	2.22E-03	23	2.46%	187	7.78E-04
8	7.76%	591	2.94E-03	16	7.14%	543	2.26E-03	24	1.87%	142	5.90E-04
								Total		7,610	

4300 Stevens Creek Blvd, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Kiely Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = **2026**

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
FUG_NB_KIE	Kiely Blvd Northbound	NB	2	575.4	0.36	13.3	44	1.3	Varied	7,610	7,662	82,468	1.386E-07	1.022E-07	2.6	1.21
FUG_SB_KIE	Kiely Blvd Southbound	SB	2	596.1	0.37	13.3	44	1.3	Varied	7,610	7,937	85,435	1.386E-07	1.022E-07	2.6	1.21
									Total	15,221						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30	25		
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211	0.00211		
Brake Wear - Emissions per Vehicle (g/VMT)	0.01680	0.01680		
Road Dust - Emissions per Vehicle (g/VMT)	0.01482	0.01482		
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03373	0.03373		

Emisson Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	87	2.93E-04	9	7.11%	541	1.81E-03	17	7.38%	562	1.88E-03
2	0.42%	32	1.07E-04	10	4.39%	334	1.12E-03	18	8.18%	622	2.08E-03
3	0.41%	31	1.03E-04	11	4.66%	355	1.19E-03	19	5.70%	434	1.45E-03
4	0.26%	20	6.65E-05	12	5.89%	448	1.50E-03	20	4.27%	325	1.09E-03
5	0.50%	38	1.27E-04	13	6.15%	468	1.57E-03	21	3.26%	248	8.31E-04
6	0.90%	69	2.30E-04	14	6.04%	459	1.54E-03	22	3.30%	251	8.41E-04
7	3.79%	288	9.65E-04	15	7.01%	534	1.79E-03	23	2.46%	187	6.28E-04
8	7.76%	591	1.98E-03	16	7.14%	543	1.82E-03	24	1.87%	142	4.76E-04
								Total		7,610	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	87	3.04E-04	9	7.11%	541	1.88E-03	17	7.38%	562	1.95E-03
2	0.42%	32	1.11E-04	10	4.39%	334	1.16E-03	18	8.18%	622	2.16E-03
3	0.41%	31	1.07E-04	11	4.66%	355	1.23E-03	19	5.70%	434	1.50E-03
4	0.26%	20	6.89E-05	12	5.89%	448	1.56E-03	20	4.27%	325	1.13E-03
5	0.50%	38	1.32E-04	13	6.15%	468	1.62E-03	21	3.26%	248	8.60E-04
6	0.90%	69	2.39E-04	14	6.04%	459	1.59E-03	22	3.30%	251	8.72E-04
7	3.79%	288	1.00E-03	15	7.01%	534	1.85E-03	23	2.46%	187	6.50E-04
8	7.76%	591	2.05E-03	16	7.14%	543	1.89E-03	24	1.87%	142	4.93E-04
								Total		7,610	

4300 Stevens Creek Blvd, San Jose - Kiely Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st & 2nd Levels of Residential Receptors
- Building A at 4m (2nd Fl) and 7.6m (3rd Fl) receptor heights
- Buildings B & C at 7.6m (3rd Fl) and 11m (4th Fl) receptor heights

Emission Year	2026
Receptor Information	Maximum On-Site Receptor
Number of Receptors	278
Receptor Height	1st & 2nd Level of Residential Receptors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions	
BAQMD San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2013-2017	0.0002	0.0151	0.0193	1st Level of Res Receps
2013-2017	0.0002	0.0121	0.0155	2nd Level of Res Receps

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2013-2017	0.0158	0.0151	0.0008	1st Level of Res Receps
2013-2017	0.0127	0.0121	0.0006	2nd Level of Res Receps

4300 Stevens Creek Blvd, San Jose, CA - Kiely Blvd Cancer Risk & PM2.5
Impacts at On-Site 1 Level of Residential Receptors - Bld A at 4m (2nd Fl), Bld B & C at 7.6m (3rd Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2026	10	0.0002	0.0151	0.0193	0.003	0.001	0.0001	0.00
1	1	0 - 1	2026	10	0.0002	0.0151	0.0193	0.034	0.014	0.0011	0.05
2	1	1 - 2	2027	10	0.0002	0.0151	0.0193	0.034	0.014	0.0011	0.05
3	1	2 - 3	2028	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
4	1	3 - 4	2029	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
5	1	4 - 5	2030	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
6	1	5 - 6	2031	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
7	1	6 - 7	2032	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
8	1	7 - 8	2033	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
9	1	8 - 9	2034	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
10	1	9 - 10	2035	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
11	1	10 - 11	2036	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
12	1	11 - 12	2037	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
13	1	12 - 13	2038	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
14	1	13 - 14	2039	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
15	1	14 - 15	2040	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
16	1	15 - 16	2041	3	0.0002	0.0151	0.0193	0.005	0.002	0.0002	0.01
17	1	16-17	2042	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0002	0.0151	0.0193	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.16	0.064	0.005	**0.23**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00004	0.02	0.02

* Third trimester of pregnancy

4300 Stevens Creek Blvd, San Jose, CA - Kiely Blvd Cancer Risk & PM2.5
Impacts at On-Site 2 Level of Residential Receptors - Bld A at 7.6m (3rd Fl), Bld B & C at 11m (4th Fl) receptor heights
30 Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2026	10	0.0002	0.0121	0.0155	0.002	0.001	0.0001	0.00
1	1	0 - 1	2026	10	0.0002	0.0121	0.0155	0.028	0.011	0.0009	0.04
2	1	1 - 2	2027	10	0.0002	0.0121	0.0155	0.028	0.011	0.0009	0.04
3	1	2 - 3	2028	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
4	1	3 - 4	2029	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
5	1	4 - 5	2030	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
6	1	5 - 6	2031	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
7	1	6 - 7	2032	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
8	1	7 - 8	2033	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
9	1	8 - 9	2034	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
10	1	9 - 10	2035	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
11	1	10 - 11	2036	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
12	1	11 - 12	2037	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
13	1	12 - 13	2038	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
14	1	13 - 14	2039	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
15	1	14 - 15	2040	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
16	1	15 - 16	2041	3	0.0002	0.0121	0.0155	0.004	0.002	0.0001	0.01
17	1	16-17	2042	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0002	0.0121	0.0155	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.13	0.052	0.004	**0.18**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00003	0.01	0.01

* Third trimester of pregnancy

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

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

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

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

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

Table A: Requester Contact Information

Date of Request	**11/12/2021**
Contact Name	Casey Divine
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	cdivine@illingworthrodkin.com
Project Name	4300 Stevens Creek Blvd
Address	4300 Stevens Creek Blvd
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Mixed-Use
Project Size (# of units or building square feet)	580 du, 250 room Hotel

Comments:

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

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

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

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

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

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

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

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

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

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

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments
+1000	112372	Stevens Creek Union	4185 Stevens Creek Blvd	18.80	0.08	-		Gas Dispensing Facility		2018 Dataset

Construction MEI

Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
0.01	0.28	0.001	#VALUE!

Project Site

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
700	112372	0.03	0.50	0.002	#VALUE!

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.
    Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

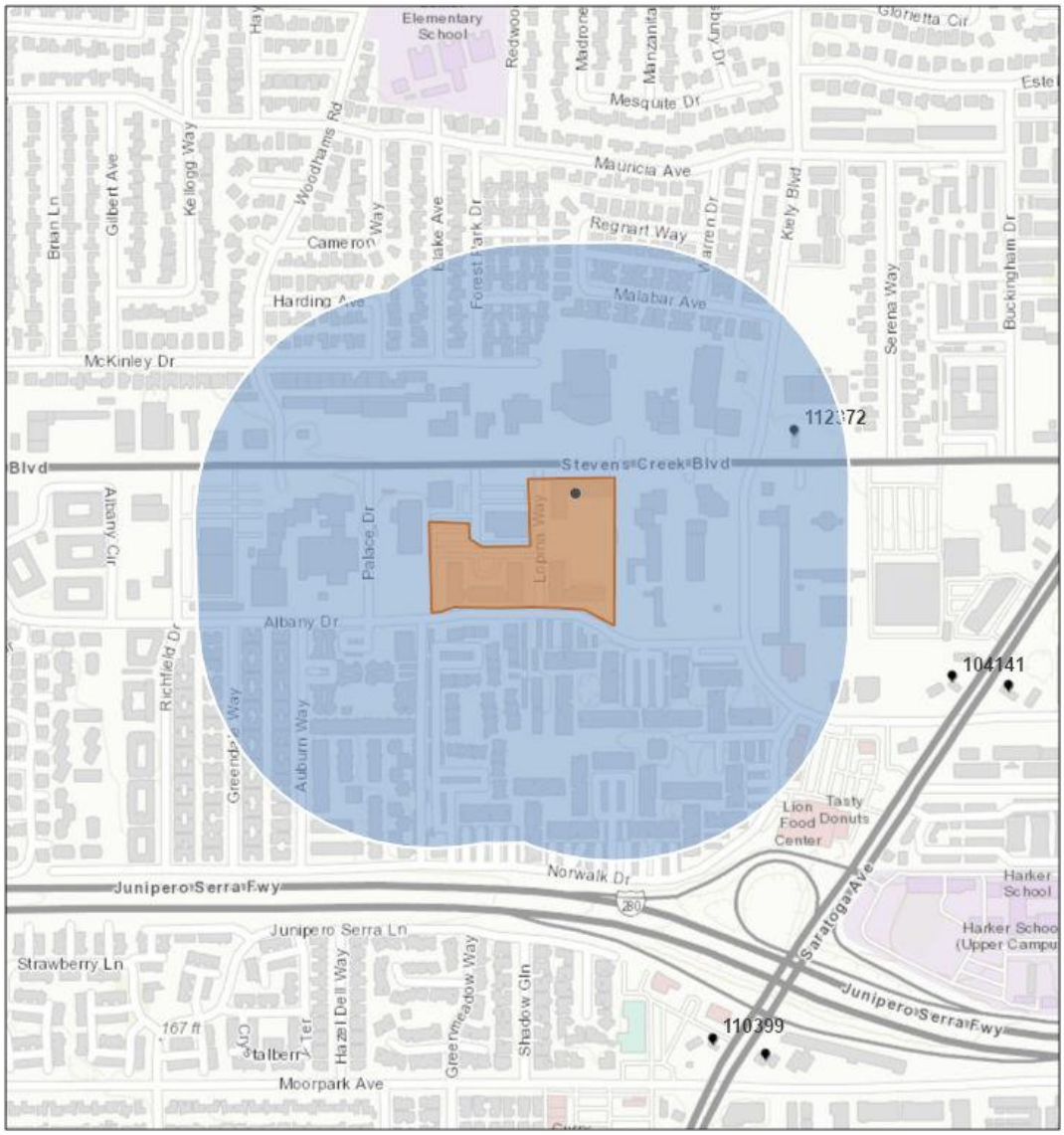
Date last updated:
03/13/2018

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 6,170,941.35 ft²

Nov 12 2021 15:00:24 Pacific Standard Time



Permitted Facilities 2018

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	1	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	112372	Stevens Creek Union	4185 Stevens Creek Blvd	Santa Clara	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	95051	Santa Clara	18.800	0.080	0.000	Gas Dispensing Facility	1

Note: The estimated risk and hazard impacts from these sources would be expected to be substantially lower when site specific Health Risk Screening Assessments are conducted.

The screening level map is not recommended for evaluating sensitive land uses such as schools, senior centers, day cares, and health facilities.