SAN JOSÉ SENIOR LIVING AIR QUALITY AND GREENHOUSE GAS EMISSION ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address air quality, community health risk, and greenhouse gas (GHG) impacts associated with the proposed assisted living development located at 3315 Almaden Expressway in San José, California. The air quality impacts from this project would be associated with demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutants and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential project health risk impacts (includes construction and operation) and the impact of existing toxic air contaminant (TAC) sources affecting the nearby sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Update – September 25, 2020: Slightly revised plans would require additional construction truck traffic associated with slightly different projected import and export material quantities during construction. These recent plans updated since this analysis indicate that there would be 6,532 cy export of export, 3,663 cy of over excavation and reconditioning under building mat slab and 6,532 cy of structural fill import. This would result in a slight but unsubstantial increase in truck trips. This would be an increase of 664 trips, compared to 6,129 haul and 9,630 vendor trips that were modeled (about a 4% increase). Note that vehicle emissions account for 35% to 42% of total construction emissions and 2% of localized emissions. Therefore, total construction emissions may be underpredicted by 1 to 2 percent. The resulting changes to health risk effects that are based on localized emissions are negligible (less than one percent).

Project Description

The project would demolish the existing, approximately 47,124 square foot (sf) single-story, multi-tenant office building and surface parking lot and construct a four-story (up to 53 feet tall), approximately 195,840 sf assisted living facility. The assisted living facility would offer housing for seniors who are independent, require help with day-to-day activities or memory care assistance, but do not require intensive medical or nursing care.

The proposed facility would have a total of 195 units, 166 of which would be assisted living units and the remaining 29 units for memory care. It is anticipated that the units would have capacity for 230 adult residents. The building would have approximately 17,465 sf of indoor amenity space including a living area, dining area, bistro, theater, activity room, fitness center, and salon. The proposed building would be situated around over 8,800 sf of outdoor common amenity space, which would include courtyards, garden areas, seating areas, dining areas, barbeque areas, and landscaping. The facility's parking lot would provide 133 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

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

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.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

Regulatory Agencies

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. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets,

and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[2] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[3] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

San José Envision 2040 General Plan

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

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction

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

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

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

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.

[2] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[3] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines.* May.

Applicable Policies – Toxic Air Contaminants

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

MS-11.5 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-11.7 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.

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, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are residences to the west and south of the project site, across Newberry Drive. There are more sensitive receptors at farther distances with a school (Calvary Christian Academy) north of the project site and a daycare (Bright Explorers Preschool and Daycare) west of the project. This project would introduce new also sensitive receptors to the area as adult seniors

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.

Table 1. BAAQMD Air Quality Exceedance 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	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-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	
Greenhouse Gas Emissions			
Land Use Projects – Direct and Indirect GHG emissions		Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually (for 2020)* OR 4.6 metric tons per capita (for 2020)*	

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.

*BAAQMD does not have a recommended post-2020 GHG threshold.

AIR QUALITY IMPACTS AND MITIGATION MEASURES

Impact AIR-1: 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 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[4] The model output from CalEEMod along with construction inputs are included as *Attachment 2* and EMFAC2017 vehicle emissions modeling outputs are included in *Attachment 3*.

Land Use Inputs

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

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet	Acreage
Congregate Care (Assisted Living)	195	Beds	195,840	3.57
Parking Lot	133	Parking Spaces	55,584	

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 information provided by the project applicant.

[4] See CARB's EMFAC2017 Web Database at https://www.arb.ca.gov/emfac/2017/

The construction schedule assumed that the earliest possible start date would be August 2021 and the project would be built out over a period of approximately 24 months, or 438 construction workdays. The construction equipment worksheet provided 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 provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase.

Construction Traffic Emissions

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2017 model; however, CalEEMod has not been updated to include EMFAC2017. 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 rate by the number of days in that phase. The traffic information was combined with EMFAC2017 motor vehicle emissions factors.

EMFAC2017 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trucks, 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. Since CalEEMod does not address cement or asphalt trucks, these were treated as vendor travel distances (7.3 miles). Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On road emissions in Santa Clara County for 2021, 2022, and 2023 were used in these calculations. Table 3 provides the traffic inputs that were combined with the EMFAC2017 emission database to compute vehicle emissions.

Table 3. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Daily Worker Rate[1]	Daily Vendor Rate[1]	Total Haul Rate	
Vehicle mix[1]	72% LDA 6% LDT1 22% LDT2	38% MHDT 62% HHDT	100% HDDT	
Trip Length (miles)	10.8	7.3	20.0 Demo 7.3 Concrete/Asphalt	Truck Idle Time = 5 minutes
Demolition	150	-	4768	48,216 sf of building demolished
Site Preparation	100	-	-	CalEEMod Default
Grading	160	-	764	Import = 4,074 cy[2] Export = 2,037 cy[2]
Trenching	480	-	-	CalEEMod Default
Building Construction	52,644	9,630	460	230 cement truck round trips
Architectural Coating	6,369	-	-	CalEEMod Default
Paving	195	-	137	686 cy of asphalt

Notes:
[1] Based on 2021, 2022, and 2023 EMFAC2017 VMT-based fleet mix for Santa Clara County.
[2]Recent plans updated since this analysis indicate that there would be 6,532 cy export of export, 3,663 cy of over excavation and reconditioning under building mat slab and 6,532 cy of structural fill import. This would result in a slight but unsubstantial increase in truck trips. This would be an increase of 664 trips, compared to 6,129 haul and 9,630 vendor trips that were modeled (about a 4% increase). Note that truck emissions truck emissions make up a small part of the total construction emissions.
Square feet = sf, Cubic yards = cy

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions and dividing those emissions by the number of active workdays during that year. Table 4 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 4, predicted annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 1. Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2021	0.05	0.51	0.03	0.02
2022	1.06	1.42	0.09	0.07
2023	0.55	0.47	0.03	0.02
Average Daily Construction Emissions Per Year (pounds/day)				
2020 (110 construction workdays)	0.93	9.29	0.57	0.40
2021 (260 construction workdays)	8.16	10.92	0.69	0.52
2022 (68 construction workdays)	16.07	13.78	0.84	0.67
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust 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.*

Mitigation Measure AQ-1: Implement BAAQMD-Recommended 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

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

Operational Period Emissions

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

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. This analysis assumed that the project would be fully built out and operating in the year 2024.

Operational Trip Generation Rates

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.

The project would produce 507 daily trips and after a *Location Based Reduction* there would be 461 daily trips. The daily trip generation was calculated using the size of the project (i.e. bed in the traffic trip generation rate table) and the adjusted total automobile trips. The adjusted daily trip rate would be 2.36 daily weekday trips per bed. 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 adjusted Saturday trip rate would be 1.90 trips per bed and the Sunday trip rate would be 2.11 trips per bed. The default trip lengths and trip types specified by CalEEMod were used.

EMFAC2017 Adjustment

The vehicle emission factors and fleet mix used in CalEEMod are based on EMission FACtors from 2014 (EMFAC2014), which is an older CARB emission inventory for on road and off road mobile sources. Since the release of CalEEMod Version 2016.3.2, new emission factors have been produced by CARB. EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. It includes the latest data on California's car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to

account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.[5,6] The SAFE vehicle Rule Part One revoked California's authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant and GHG emissions would increase. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2017, which were adjusted with the CARB EMFAC off-model adjustment factors. More details about the updates in emissions calculation methodologies and data are available in the EMFAC2017 Technical Support Document.[7]

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 Jose Clean Energy (SJCE) will provide 100-percent carbon-free base power by 2021.
- One gigawatt of solar power will be installed in San Jose 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.[8] 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 solar readiness. It also requires additional EV charging readiness and/or electric vehicle service equipment (EVSE) installation for all development types.

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[5] California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf

[6] California Air Resource Board, 2020. *EMFAC Off-Model Adjustment Factors for Carbon Dioxide (CO_20 Emissions to Accounts for the SAFE Vehicles Rule Part One and the Final SAFE Rule*. June. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery

[7] See CARB 2018: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

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

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds CO_2 per megawatt of electricity delivered in the year 2017.[9] This intensity factor was used in the model along with the assumption that the project would use electricity supplied by San José Clean Energy (SJCE). SJCE would provide electricity that would be 100-percent carbon free by 2021 before the project becomes operational.[10]

Project Generators

The project would include one 175 kilowatts (kW) emergency diesel generator. The generator would be powered by a diesel engine, approximately 235 horsepower (HP). This generator would be tested periodically and power the buildings in the event of a power failure. For modeling purposes, it was assumed that the generator would be operated primarily for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year of non-emergency operation. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod.

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100% aerobic conditions to represent wastewater treatment plant conditions.

Existing Land Use

The existing site consists of office buildings; therefore, the existing land use was modeled as 47,124 sf of "General Office Building" in CalEEMod. The traffic consultants provided project-specific trip rates for this land uses, so the trip generation rates were changed to use the rates from the traffic consultants.

[9] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

[10] See: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Summary of Computed Operational Emissions

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

Table 5. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2024 Annual Project Operational Emissions (*tons/year*)	1.11	0.28	0.39	0.11
2024 Annual Existing Operational Emissions (*tons/year*)	0.32	0.21	0.29	0.08
Net Annual Emissions	0.79	0.07	0.10	0.03
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2024 Daily Project Operational Emissions (*pounds/day*)[1]	4.33	0.38	0.57	0.18
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-2: 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. emergency diesel generators and mobile sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would include the installation of emergency generators powered by diesel engines that would also have emissions of TACs and air pollutants. Additionally, the project would generate some traffic, consisting of mostly light-duty vehicles. However, the number daily trips generated by the project are small enough (i.e. 461 daily trips) to not be considered a source of substantial TACs or $PM_{2.5}$.

Therefore, project impacts to existing sensitive receptors were addressed for temporary construction activities and the operation of the emergency generator. 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 that includes the project contribution.

Community Risk Methodology for Construction and Operation

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

These sources include on-site construction activity, construction truck hauling, 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,[11] with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. Unlike, the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project's 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 modeling of TAC and $PM_{2.5}$ emissions, dispersion modeling and cancer risk computations.

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 include all adjacent existing residences and other sensitive receptor groups, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e. infants, children, and adults) with almost continuous exposure to project emissions. Additionally, the risks and hazard values were calculated for infants and children at the Calvary Christian Academy and the Bright Explorers Preschool and Daycare.

Community Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Although it was concluded in the previous sections (see Table 4) that construction 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 impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[12] This assessment included dispersion modeling to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages of 0.0920 tons (184 pounds). The on-road emissions are a

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

result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length one mile was used to represent vehicle travel while at or near the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.0293 tons (59 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area and construction haul routes. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[13]

Construction Sources

To represent the construction equipment exhaust emissions, an area source emission release height of 20 feet (6 meters) was used for the area sources.[14] The 20-foot release height used for the refined modeling of the project's construction equipment exhaust DPM emissions is a conservative estimate of the overall plume height and incorporates both the release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, should be based on the height the exhaust plume is expected to achieve, not just the height of the top of the exhaust pipe.

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

AERMOD Inputs and Meteorological Data

The modeling used a 5-year meteorological data set (2013-2017) from the San José International Airport prepared for use with the AERMOD model by the BAAQMD. This airport is approximately eight miles north of the project site. Annual DPM and $PM_{2.5}$ concentrations from

[13] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.
[14] California Air Resource Board, 2007. *Proposed Regulation for In-Use Off-Road Diesel Vehicles, Appendix D: Health Risk Methodology.* April. Web: https://ww3.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm

construction activities during the2021-2023 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. Receptor heights of 5 feet (1.5 meters) used to represent the breathing heights of residences and students.

Construction emissions were modeled as occurring daily between 7:00 a.m. to 5:00 p.m. The emission rates used for dispersion modeling were calculated using the total annual construction emissions computed using CalEEMod (based on construction occurring 5 days per week) and dividing by 9 hours per day for 365 days (i.e., normalizing the emissions to an annualized pound per hour emission rate over the period being modeled). The dispersion modeling was conducted assuming emissions would occur 9 hours per day using the variable emission option in the U.S. EPA AERMOD dispersion model, 365 days per year.

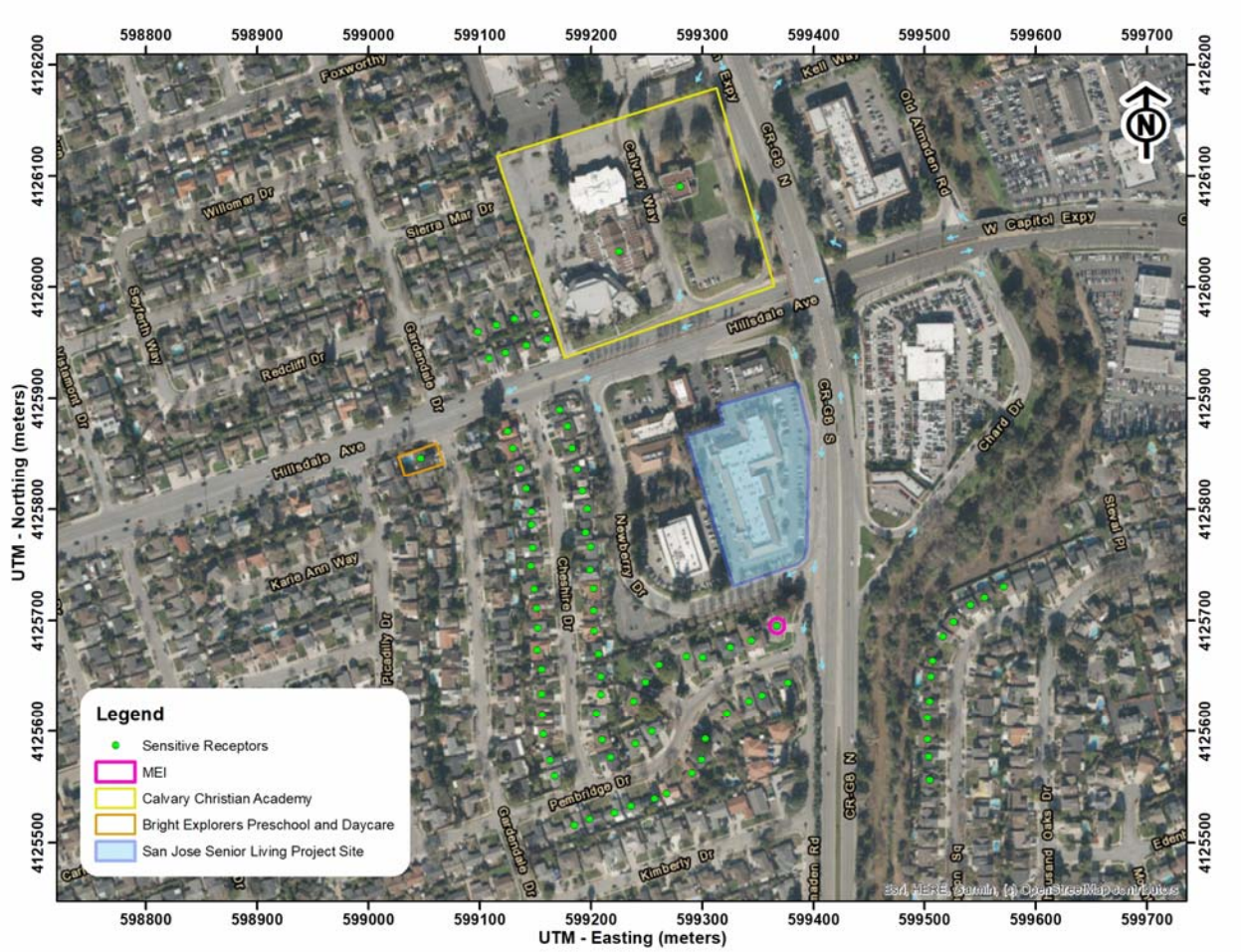
Summary of Construction Community Risk Impacts

The increased cancer risk calculations were based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations, as described in *Attachment 1*. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Infant 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 refence exposure level of 5 $\mu g/m^3$.

The maximum modeled annual DPM and $PM_{2.5}$ concentrations, which includes both the DPM and fugitive $PM_{2.5}$ concentrations, were identified at nearby sensitive receptors (as shown in Figure 1) to find the MEI. Results indicated that the MEI was located on the first floor (5 feet above ground) at the residence to the south of the project site. Table 6 lists the community risks from construction at the location of existing off-site residential MEI. *Attachment 4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Figure 1. Project Construction Site and Locations of Off-Site Sensitive Receptors and Maximum TAC Impacts



Community Risks from Project Operation – Traffic and Generators

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

Operational Traffic

Per BAAQMD recommended risks and methodology, a road with less than 10,000 total vehicle per day is considered a low-impact source of TACs.[15] This project would generate 461 daily trips, which is less than 10,000 daily vehicles. Also, the project would generate less traffic during peak hours compared to the existing office development. Therefore, emissions from project traffic would be negligible and not included within this analysis.

Operational Emergency Generator Modeling

The project would include a 175-kW emergency generator with an approximate 235 HP diesel engine. The generator would be located on the northeastern part of the project site outside of the assisted living facility and next to part of the parking lot. Figure 2 shows the location of the modeled emergency generator.

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

To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators, the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (nearby residences). The same receptors and breathing heights used in the construction dispersion modeling were used for the generator dispersion model. Additionally, the BAAQMD San José Airport meteorological data was used. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generators were based on BAAQMD default parameters for emergency generators.[16] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day.

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

[16] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

To calculate the increased cancer risk from the generators at the MEI, the cancer risks exposure duration was adjusted to account for the MEI being exposed to construction for the first three years of the 30-year lifetime period. The exposure duration for the generators was adjusted for 27 years. Based on this duration, the increased cancer risk from the generators would be 0.2 per million. The maximum annual $PM_{2.5}$ concentration would be less than 0.01 $\mu g/m^3$ and the HI value would be less than 0.01. The emissions and health risk calculations for the proposed generators are included in *Attachment 4*.

Summary of Project-Related Community Risks at MEI

For this project, the sensitive receptor identified as the construction MEI is also the project MEI. At this location, the MEI would be exposed to three years of construction cancer risks and 27 years of operational (i.e. emergency backup generator) cancer risks. The cancer risks from construction and operation of the project were summed together. The annual $PM_{2.5}$ concentration and HI values are based on an annual maximum risk for the entirety of the project.

As shown in Table 6, the unmitigated maximum cancer risks construction and operation activities at the residential project MEI location would exceed the single-source significance thresholds. However, the mitigated risk and hazard values from the project would not exceed the BAAQMD single-source significance thresholds. Also, none of the unmitigated project risks and hazards at Bright Explorers Preschool and Daycare and the Calvary Christian Academy would exceed the BAAQMD single-source significance thresholds.

Table 6. Construction and Operation Risk Impacts at the Offsite Project MEI

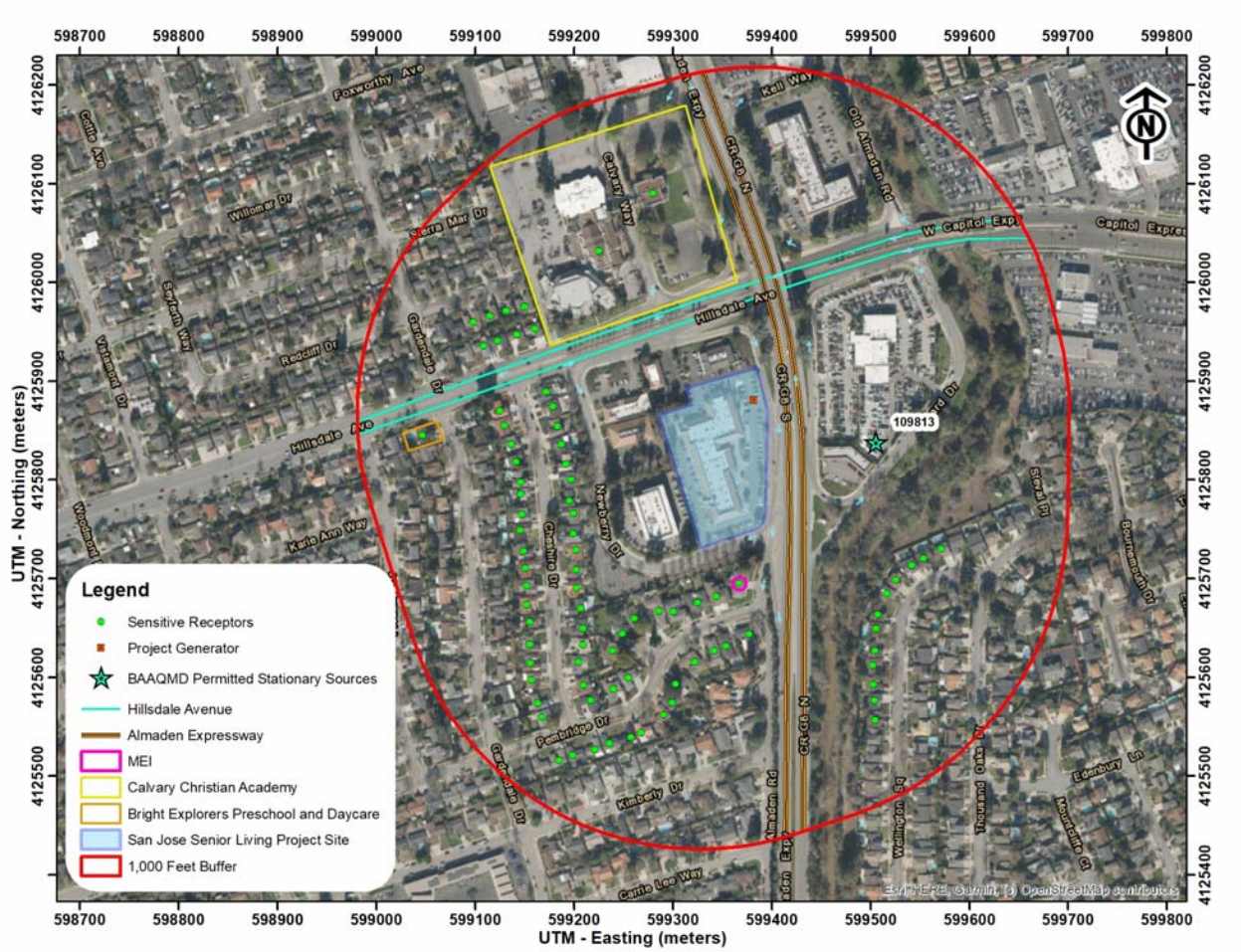
Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction (Years 0-3)	Unmitigated	**15.32**	0.15	0.01
	Mitigated	7.50	0.05	<0.01
Project Generator (Years 4-30)		0.02	<0.01	<0.01
Unmitigated Total/Maximum Project (Years 0-30)		**15.34**	0.15	0.01
Mitigated Total/Maximum Project (Years 0-30)		7.52	0.05	<0.01
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?				
	Unmitigated	***Yes***	*No*	*No*
	Mitigated	*No*	*No*	*No*
Student/Daycare Exposure[1]				
Project Construction				
	Bright Explorers Preschool and Daycare	1.82 (infant)	0.01	<0.01
	Calvary Christian Academy	1.06 (child)	0.03	<0.01
Project Generator				
	Bright Explorers Preschool and Daycare	<0.01	<0.01	<0.01
	Calvary Christian Academy	0.07	<0.01	<0.01
Unmitigated Total/Maximum Project				
	Bright Explorers Preschool and Daycare	1.83	0.01	<0.01
	Calvary Christian Academy	1.13	0.03	<0.01
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?		*No*	*No*	*No*

Notes: [1]Listed for informational purposes

Cumulative Community Risks of all TAC Sources at Project 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 freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on Almaden Expressway and Hillsdale Avenue/West Capitol Expressway would exceed 10,000 vehicles per day. Other nearby streets are assumed to have less than 10,000 vehicles per day. A review of BAAQMD's stationary source geographic information systems (GIS) map tool identified one stationary source with the potential to affect the project MEI. Figure 2 shows the location of the sources affecting the MEI. Community risk impacts from these sources upon the MEI 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 – Almaden Expressway & Hillsdale Avenue

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

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

The ADTs for Almaden Expressway and Hillsdale Avenue/West Capitol Expressway was based on PM peak-hour data for traffic volumes for the nearby roadways provided by the traffic consultant.[17] The 2018 ADT on Almaden Avenue was computed to be approximately 26,000 vehicles and the 2018 ADT on Hillsdale Avenue/West Capitol Expressway was approximately 15,500 vehicles. Since the peak-hour volumes were from 2018, the predicted ADTs were increased assuming that traffic volumes were to increase one percent per year. ADTs for 2024 were predicted using a growth formula.[18] The future predicted ADT on Hillsdale Avenue/West Capitol Expressway would be 17,000 vehicles and on Almaden Expressway would be 28,000 vehicles.

Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[19] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for both roadways. Based on the posted speed limits on each roadway, an average travel speed of 40 miles per hour (mph) was used for all hours of the day on Hillsdale Avenue/West Capitol Expressway and an average travel speed of 50 mph was used for Almaden Expressway.

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD model. North and south bound traffic on Almaden Expressway and east and west bound traffic on

[17] Email correspondence with Rueben Rodriguez, 15 April 2020.
[18] Growth Formula: Present Value = Past Value * (1 + Growth Rate)$^{\text{number of years}}$
[19] 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.

Hillsdale Avenue/West Capitol Expressway (within about 1,000 feet of the project site) were evaluated in the model. The same meteorological data and sensitive receptors used for the construction modeling were used for this model. Other inputs to the model included road geometry and elevations, hourly traffic emissions, and receptor locations. Figure 2 shows the roadway segments modeled and residential receptor locations used in the modeling. Table 7 lists the risks and hazards from both roadways. The emission rates and roadway calculations used in the analysis are shown in *Attachment 5*.

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website.[20] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts. One gas dispensing facility was identified using this tool.

A request for daily emissions from the facility was submitted to BAAQMD, who provided updated emissions data.[21] Those data were input into BAAQMD's *Risk and Hazards Emissions Screening Calculator* which computes the cancer risk, annual $PM_{2.5}$ concentrations, and HI using adjustments to account for new OEHHA guidance and distance from the sources. The screening level risks and hazards for the source was adjusted for distance using BAAQMD's *Gasoline Dispensing Facility Distance Multiplier Tool.* Table 7 lists the risks and hazards from the stationary source.

Summary of Cumulative Risks at the MEI

Table 7 reports both the project and cumulative community risk impacts. The project's community risk caused by project construction and operation activities would exceed the increased cancer single-source thresholds. However, the cumulative annual increased cancer risk, maximum $PM_{2.5}$ concentration, and hazard risk values would not exceed the cumulative threshold. To mitigate the construction risk impacts, the project would be subject to *Mitigation Measures AQ-1 and AQ-2*.

[20] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65
[21] Correspondence with Areana Flores, BAAQMD, 3 March 2020.

Table 7. Cumulative Community Risk Impacts at the Location of the MEI

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Project Impacts			
Unmitigated Total/Maximum Project (Years 0-30)	**15.34**	0.15	0.01
Mitigated Total/Maximum Project (Years 0-30)	7.52	0.05	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	*No*	*No*
Mitigated	*No*	*No*	*No*
Cumulative Sources			
Almaden Expressway, ADT 28,000	3.16	0.15	<0.01
Hillsdale Avenue/West Capital Expressway, ADT 17,000	0.38	0.03	<0.01
Capitol Nissan (Plant #109813, Gas Station) MEI Distance at 530 feet	<0.1	-	<0.01
Cumulative Sources			
Unmitigated	<18.6	0.33	<0.04
Mitigated	<10.78	0.23	<0.04
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?			
Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

Mitigation Measure AQ-2: Use construction equipment that has low diesel particulate matter exhaust to minimize emissions.

A feasible plan to reduce emissions such that increased cancer risk from construction would be reduced below significance levels is as follows:

1. All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 4 engines. U.S. EPA Tier 3 engines retrofitted with level 3 diesel particulate filters would also meet this requirement. The use of equipment that is electrically powered or uses non-diesel fuels would be acceptable as well.

2. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.

Effectiveness of Mitigation Measure AQ-2

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 interim engines standards and *Mitigation Measures AQ-1* best management practices for construction. With the implementation of the *Mitigation Measure AQ-1* and *AQ-2*, the project's construction cancer risk levels, annual $PM_{2.5}$ concentrations and HI value would be reduced to 7.50 per million, 0.05 $\mu g/m^3$, and less than 0.01, respectively. As a result, the project's construction risks would be reduced below the BAAQMD single-source thresholds.

Non-CEQA: Onsite Community Risk Assessment for TAC Sources

The proposed project would provide new residences. Therefore, onsite residential sensitive receptors were assumed to be all adult seniors. The nearby sources of TACs and their impacts upon the on-site sensitive receptors was assessed.[22] Figure 3 shows the on-site sensitive receptors in relation to the nearby TAC sources. The risk impacts from the TAC sources are shown in Table 8.

Local Roadways – Almaden Expressway & Hillsdale Avenue/West Capitol Expressway

The roadway analysis was done in the same manner for the new project sensitive receptors as described in the project traffic dispersion modeling section (see above). A 30-year exposure period was used in the risk calculations and a breathing height of 5 feet was used.

BAAQMD Permitted Stationary Sources

The stationary source analysis was done in the same manner as described above for the project MEI.

Summary of Cumulative Community Risks at the Project Site

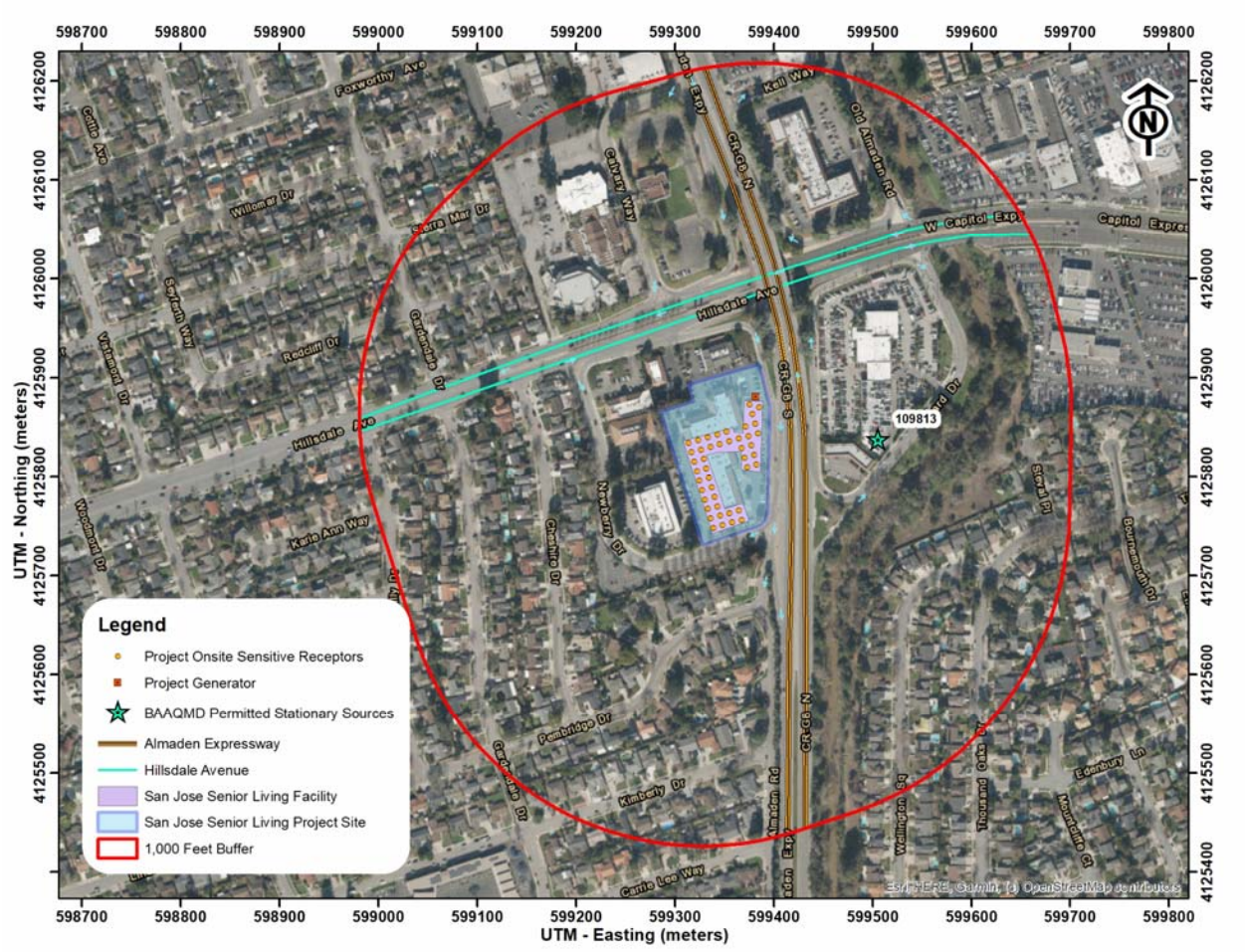
Community risk impacts from the existing and TAC sources upon the project site are reported in Table 8. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, none of the risks and hazards from the TAC sources exceed the single-source or cumulative-source thresholds.

Table 8. Cumulative Community Risk Impacts Upon the Onsite Sensitive Receptors

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Almaden Expressway, ADT 25,000 (MEI 140 feet south)	0.56	0.24	<0.01
Hillsdale Avenue/West Capital Expressway, ADT 17,000	0.13	0.08	<0.01
Capitol Nissan (Plant #109813, Gas Station) MEI Distance at 230 feet	<0.1	-	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	*No*	*No*	*No*
Cumulative Sources	0.79	0.32	<0.03
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*No*	*No*	*No*

[22] 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

Figure 3. Onsite Project Sensitive Receptors and Nearby TAC and $PM_{2.5}$ Sources



Greenhouse Gas Emissions

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2, CH_4, and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Recent Regulatory Actions for GHG Emissions

Executive Order S-3-05 – California GHG Reduction Targets

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

Assembly Bill 32 – California Global Warming Solutions Act (2006)

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State's main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*.[23] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive

[23] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

Executive Order B-55-18 – Carbon Neutrality

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and create policies/programs that would meet this goal.

Senate Bill 375 – California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be

achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

California Building Standards Code – Title 24 Part 11 & Part 6

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[24] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1,2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic

[24] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.

systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[25]

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[26] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[27] In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was computed for the year 2011.[28] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011

GHG Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate. Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.6 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_2e/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.6 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels.[29] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold.

[25] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
[26] United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018*. April. Web: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf
[27] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Web: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf
[28] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Web: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.
[29] Association of Environmental Professionals, 2016. *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. April.

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

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, the generator, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above. CalEEMod output is included in *Attachment 2*.

Service Population

The project service population efficiency rate is based on the number of employees and residents. The facility would have a total of approximately 100 employees and the assisted living facility would house 230 adult residents. The total service population would be 330 employees and residents.

Construction Emissions

GHG emissions associated with construction were computed to be 714 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. The effects from project-specific sustainability measures were not included in this analysis.

To be considered an exceedance, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the future year of 2030. As shown in Table 10, net annual emissions from the proposed project are predicted to be 31 MT of CO_2e in 2030. The service population emissions for 2030 are predicted to be 1.3 MT/CO_2e/year/service population, respectively. Both the net metric ton emissions and service population emissions are under the thresholds. Therefore, the project would not be in exceedance for GHG emissions.

Table 10. Annual Project GHG Emissions (CO_2e) in Metric Tons and by Service Population

Source Category	Existing Land Use in 2024	Proposed Project in 2024	Existing Land Use in 2030	Proposed Project in 2030
Area	<0	2	<0	2
Energy Consumption	122	0	122	0
Mobile	256	343	227	305
Solid Waste Generation	22	89	22	89
Water Usage	11	17	11	17
Metric Ton Total	411	452	383	414
Net Metric Tons		42		31
Bright-Line Significance Threshold		-		*660 MT of CO_2e*
Service Population Emissions		1.4		1.3
Service Population Significance Threshold		-		*2.6 MT of CO_2e/year/service population*
Exceed Both Thresholds?				***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. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2017 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 screening community risk calculations from sources affecting the MEI. Due to the large size of the BAAQMD health risk calculators, these files were not included but are available upon request and would be provided in digital format.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminants (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.[30] 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.[31] 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.[32] 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.

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[30] 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.

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

[32] 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.

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). The HI value represents the maximum concentration at which no adverse health effects to the respiratory system are anticipated to occur. 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 ($\mu g/m^3$).

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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: CP-SRM San Jose

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size 195 Dwelling Units 3.57 total project acres disturbed
142185 s.f. residential
0 s.f. retail
53655 s.f. office/commercial
s.f. other, specify:
s.f. parking garage spaces
55584 s.f. parking lot 133 spaces

Construction Hours 7:00 am to 5:00 pm

Pile Driving? Y/N? N

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? Y
IF YES (if BOTH separate values) -->
Kilowatts/Horsepower: 175 KW
Fuel Type: Diesel

Location in project (Plans Desired if Available): Location TBD

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	Annual Hours	Comments
	Demolition	**Start Date:**	**8/2/2021**	**Total phase:**	**15**			**Overall Import/Export Volumes**
		End Date:	**8/23/2021**					
1	Concrete/Industrial Saws	81	0.73	4	5	1.3	20	**Demolition Volume**
2	Excavators	158	0.38	8	12	6.4	192	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			0.0	0	(*or* total tons to be hauled)
1	Tractors/Loaders/Backhoes	97	0.37	8	12	6.4	96	48,216 square feet *or*
								? Hauling volume (tons)
								Any pavement demolished and hauled? ? tons
	Site Preparation	**Start Date:**	**8/23/2021**	**Total phase:**	**20**			
		End Date:	**9/20/2021**					
	Graders	187	0.41			0.0	0	
	Rubber Tired Dozers	247	0.4			0.0	0	
2	Tractors/Loaders/Backhoes	97	0.37	8	20	8.0	320	
	Grading / Excavation	**Start Date:**	**9/20/2021**	**Total phase:**	**20**			
		End Date:	**10/18/2021**					**Soil Hauling Volume**
	Excavators	158	0.38			0.0	0	Export volume = 2037 cubic yards?
	Graders	187	0.41			0.0	0	Import volume = 4074 cubic yards?
1	Rubber Tired Dozers	247	0.4	6	20	6.0	120	
	Concrete/Industrial Saws	81	0.73			0.0	0	
1	Tractors/Loaders/Backhoes	97	0.37	8	20	8.0	160	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**10/18/2021**	**Total phase:**	**60**			
		End Date:	**1/10/2022**					
2	Tractor/Loader/Backhoe	97	0.37	8	40	5.3	640	
1	Excavators	158	0.38	8	20	2.7	160	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**1/10/2022**	**Total phase:**	**321**			**Cement Trucks? 230 Total Round-Trips**
		End Date:	**4/5/2023**					
1	Cranes	231	0.29	8	15	0.4	120	Electric? (Y/N) N Otherwise assumed diesel
2	Forklifts	89	0.2	6	360	6.7	4320	Liquid Propane (LPG)? (Y/N) N Otherwise Assumed diesel
	Generator Sets	84	0.74			0.0	0	Or temporary line power? (Y/N) Y
1	Tractors/Loaders/Backhoes	97	0.37	5		0.0	0	
1	Welders	46	0.45	2	15	0.1	30	
	Other Equipment?					0.0		
	Building - Interior/Architectural Coating	**Start Date:**	**7/9/2022**	**Total phase:**	**193**			
		End Date:	**4/5/2023**					
5	Air Compressors	78	0.48	8	130	5.4	5200	
1	Aerial Lift	62	0.31	5	120	3.1	600	
	Other Equipment?							
	Paving	**Start Date:**	**3/15/2023**	**Total phase:**	**15**			
		Start Date:	**4/5/2023**					
1	Cement and Mortar Mixers	9	0.56	6	15	6.0	90	
1	Pavers	130	0.42	6	15	6.0	90	**Asphalt? 686 cubic yards or ____ round trips?**
1	Paving Equipment	132	0.36			0.0	0	
1	Rollers	80	0.38	6	15	6.0	90	
1	Tractors/Loaders/Backhoes	97	0.37	6	15	6.0	90	
	Other Equipment?							
	Additional Phases	**Start Date:**		**Total phase:**				
		Start Date:						

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 horepower or load factor, as appropriate

Complete one sheet for each project component

Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2021	0.0268	0.2691	0.0145	0.0134	36	
2022	1.0125	0.919	0.0524	0.0501	148	
2023	0.5362	0.3647	0.0193	0.0186	67	
EMFAC						
2021	0.025	0.242	0.017	0.008	118	
2022	0.049	0.500	0.037	0.017	276	
2023	0.010	0.104	0.009	0.004	69	
Total Construction Emissions by Year						
2021	0.05	0.51	0.03	0.02	154	
2022	1.06	1.42	0.09	0.07	424	
2023	0.55	0.47	0.03	0.02	136	
	Total Construction Emissions					
Tons	1.7	2.4	0.1	0.1	714	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2021	0.93	9.29	0.57	0.40		110
2022	8.16	10.92	0.69	0.52		260
2023	16.07	13.78	0.84	0.67		68

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	1.11	0.28	0.39	0.11		
	Existing Use Emissions					
Total	0.32	0.21	0.29	0.08		
	Net Annual Operational Emissions					
Tons/year	0.79	0.07	0.10	0.03		
	Average Daily Emissions					
Pounds Per Day	4.33	0.38	0.57	0.18		

Category	**CO2e**			
	Existing	Project	Existing 2030	Project 2030
Area	0	2	0	2
Energy	122	0	122	0
Mobile	256	343	227	305
Waste	22	89	22	89
Water	11	17	11	17
TOTAL	411	452	383	414
Net GHG Emissions		41		31
Service Population	330			
Per Capita Emissions		1.37		1.25

Traffic Consultant Trip Gen					CalEEMod Default			
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Assisted Living	195	507	461	***2.36***	2.74	2.2	2.44
Reduction		*-46*			*Rev*	***1.90***	***2.11***
Reduction							
General Office Building	47.124	*459*	418	***8.87***	11.03	2.46	1.05
		-41			*Rev*	***1.98***	***0.84***

3315 Almaden Expressway Trip Generation Summary

			Daily		AM Peak Hour				PM Peak Hour			
						Trip				Trip		
Land Use	**Size**	**Units**	**Rate**	**Trip**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
Proposed												
Assisted Living [1]	195	Beds	2.60	507	0.19	23	14	37	0.26	19	32	51
Location Based Reduction (9%) [2]				*(46)*		*(2)*	*(1)*	*(3)*		*(2)*	*(3)*	*(5)*
Project Trips				**461**		**21**	**13**	**34**		**17**	**29**	**46**
Existing												
Office Building [3]	47.124	ksf	9.74	459	1.16	47	8	55	1.15	9	45	54
Location Based Reduction (9%) [2]				*(41)*		*(4)*	*(1)*	*(5)*		*(1)*	*(4)*	*(5)*
Existing Trips				**418**		**43**	**7**	**50**		**8**	**41**	**49**
Net Project Trips				**43**		**(22)**	**6**	**(16)**		**9**	**(12)**	**(3)**

Notes:

[1] Assisted living trip generation based on the rates published in the *ITE Trip Generation Manual, 10th Edition* (2017) for Assisted Living (Land Use Code 254). Rates expressed in trips per bed.

[2] The project site is located within an urban low-transit area based on the City of San Jose VMT Evaluation Tool (February 28, 2019). A 9% reduction was applied based on the location-based vehicle mode share percentage outputs from Table 6 of the City of San Jose *Transportation Analysis Handbook 2018* (TA Handbook).

[3] Existing office building trip generation based on the rates published in the *ITE Trip Generation Manual, 10th Edition* (2017) for General Office Buidling (Land Use Code 710). Rates expressed in trips per 1000 square foot.

Summary of Construction Traffic Emissions (EMFAC2017)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Tons						*Metric Tons*
Criteria Pollutants											
2021	0.025	0.242	0.229	0.001	0.068	0.017	0.085	0.010	0.008	0.019	117.912
2022	0.049	0.500	0.502	0.003	0.164	0.037	0.201	0.025	0.017	0.042	276.001
2023	0.010	0.104	0.120	0.001	0.043	0.009	0.052	0.006	0.004	0.010	69.074
Toxic Air Contaminants (1 Mile Trip Length)											
2021	0.016	0.049	0.076	0.000	0.006	0.002	0.008	0.001	0.001	0.002	14.104
2022	0.035	0.111	0.178	0.000	0.015	0.003	0.018	0.002	0.002	0.004	33.319
2023	0.008	0.026	0.045	0.000	0.004	0.001	0.005	0.001	0.000	0.001	8.360

20-039 San José Senior Living - AQ/GHG

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	133.00	Space	0.00	55,584.00	0
Congregate Care (Assisted Living)	195.00	Dwelling Unit	3.57	195,840.00	558

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 210 rate

Land Use - Congregate Care: 195 DU (195,840 total SF, includes the amenities and mechnical and BOH). Parking Lot: 133 spaces (55,584 total SF)

Construction Phase - Project Applicant Construction Schedule

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Trips and VMT - EMFAC2017 for Construction Trip/Hauling Emissions

Demolition - Demolish 48,216 sqft

Grading - Export = 2037 cy, Import = 4074 cy

Vehicle Trips - 195 beds/461 net trips: 2.36 weekday, 1.90 saturday, 2.11 sunday

Vehicle Emission Factors - EMFAC2017 Emission Factors for Santa Clara County 2024

Woodstoves - No hearths or gas

Energy Use - San Jose Natural Gas Infrastrucutre Prohibition effective Jan 1, 2020. https://www.sanjoseca.gov/home/showdocument?id=45668

Water And Wastewater - WTP 100%

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

Energy Mitigation - Reach Code SJ 100% carbon free electricity

Stationary Sources - Emergency Generators and Fire Pumps - 175 kW generator (approximately 235 HP)

Area Mitigation - No Hearths

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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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
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	18.00	193.00
tblConstructionPhase	NumDays	230.00	321.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	15.00
tblConstructionPhase	NumDays	5.00	20.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	NumberGas	29.25	0.00
tblFireplaces	NumberNoFireplace	7.80	0.00
tblFireplaces	NumberWood	33.15	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0150e-003	5.3025e-003
tblFleetMix	LHD2	5.0150e-003	5.3025e-003
tblFleetMix	MCY	5.2490e-003	5.0760e-003
tblFleetMix	MCY	5.2490e-003	5.0760e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	7.0400e-004	7.5242e-004
tblFleetMix	MH	7.0400e-004	7.5242e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.1770e-003	1.5888e-003
tblFleetMix	OBUS	2.1770e-003	1.5888e-003
tblFleetMix	SBUS	6.3200e-004	9.2007e-004
tblFleetMix	SBUS	6.3200e-004	9.2007e-004
tblFleetMix	UBUS	1.5140e-003	1.2476e-003
tblFleetMix	UBUS	1.5140e-003	1.2476e-003
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	2,037.00
tblGrading	MaterialImported	0.00	4,074.00
tblLandUse	LandUseSquareFeet	53,200.00	55,584.00
tblLandUse	LandUseSquareFeet	195,000.00	195,840.00
tblLandUse	LotAcreage	1.20	0.00
tblLandUse	LotAcreage	12.19	3.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	235.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	4,768.00	0.00
tblTripsAndVMT	HaulingTripNumber	764.00	0.00

tblTripsAndVMT	VendorTripNumber	30.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	164.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
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tblVehicleEF	HHD	0.05	0.05
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tblVehicleEF	HHD	0.04	0.04
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tblVehicleEF	LDA	1.4690e-003	1.1940e-003
tblVehicleEF	LDA	2.0400e-003	1.5440e-003
tblVehicleEF	LDA	0.03	0.04

tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
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tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2460e-003	9.3000e-005
tblVehicleEF	LDA	5.4600e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	9.3280e-003
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tblVehicleEF	LDA	0.06	0.21
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tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02
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tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.14	0.30
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tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	1.32	2.70
tblVehicleEF	LDT2	319.72	308.00
tblVehicleEF	LDT2	74.64	66.71
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	1.6510e-003	1.3470e-003
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tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
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tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.2020e-003	0.01
tblVehicleEF	LDT2	7.6800e-004	9.1000e-005
tblVehicleEF	LDT2	0.04	0.06

tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	5.1130e-003	4.9880e-003
tblVehicleEF	LHD1	0.02	7.8580e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.18
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tblVehicleEF	LHD1	8.98	8.86
tblVehicleEF	LHD1	679.88	779.34
tblVehicleEF	LHD1	31.45	11.55
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.00	0.65
tblVehicleEF	LHD1	0.94	0.30
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tblVehicleEF	LHD1	0.01	9.1590e-003
tblVehicleEF	LHD1	8.3200e-004	2.2800e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
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tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.12	0.09

tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.6000e-005
tblVehicleEF	LHD1	6.6680e-003	7.6080e-003
tblVehicleEF	LHD1	3.6000e-004	1.1400e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD2	3.1970e-003	3.0380e-003
tblVehicleEF	LHD2	7.0200e-003	6.6540e-003
tblVehicleEF	LHD2	5.9370e-003	7.7290e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.53	0.59
tblVehicleEF	LHD2	1.09	0.60
tblVehicleEF	LHD2	13.93	13.88
tblVehicleEF	LHD2	699.69	754.92
tblVehicleEF	LHD2	23.61	7.59
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.59	0.77
tblVehicleEF	LHD2	0.41	0.17
tblVehicleEF	LHD2	1.2120e-003	1.4370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0000e-004	1.2700e-004
tblVehicleEF	LHD2	1.1590e-003	1.3750e-003
tblVehicleEF	LHD2	2.6950e-003	2.6920e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6800e-004	1.1700e-004
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3600e-004	1.3300e-004
tblVehicleEF	LHD2	6.8030e-003	7.2890e-003
tblVehicleEF	LHD2	2.5500e-004	7.5000e-005
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.47	18.60
tblVehicleEF	MCY	10.21	9.06
tblVehicleEF	MCY	170.05	210.08
tblVehicleEF	MCY	44.74	60.71
tblVehicleEF	MCY	1.14	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.0290e-003	1.9970e-003
tblVehicleEF	MCY	3.5220e-003	2.9300e-003
tblVehicleEF	MCY	1.8960e-003	1.8650e-003

tblVehicleEF	MCY	3.3110e-003	2.7520e-003
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.18	2.19
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.18	1.93
tblVehicleEF	MCY	2.0670e-003	2.0790e-003
tblVehicleEF	MCY	6.7900e-004	6.0100e-004
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.71	2.72
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.38	2.10
tblVehicleEF	MDV	8.4590e-003	3.4000e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.97	0.78
tblVehicleEF	MDV	2.43	2.96
tblVehicleEF	MDV	429.38	372.42
tblVehicleEF	MDV	98.57	79.53
tblVehicleEF	MDV	0.12	0.07
tblVehicleEF	MDV	0.21	0.29
tblVehicleEF	MDV	1.7680e-003	1.4380e-003
tblVehicleEF	MDV	2.4430e-003	1.8100e-003
tblVehicleEF	MDV	1.6290e-003	1.3260e-003
tblVehicleEF	MDV	2.2460e-003	1.6640e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07

tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.18	0.34
tblVehicleEF	MDV	4.2980e-003	3.6060e-003
tblVehicleEF	MDV	1.0280e-003	7.7100e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	9.5570e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.61	0.93
tblVehicleEF	MH	5.16	2.03
tblVehicleEF	MH	1,207.03	1,501.42
tblVehicleEF	MH	58.43	18.14
tblVehicleEF	MH	1.20	1.31
tblVehicleEF	MH	0.77	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0680e-003	2.6100e-004
tblVehicleEF	MH	3.2200e-003	3.2790e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.8200e-004	2.4000e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.08	0.06
tblVehicleEF	MH	0.02	1.30

tblVehicleEF	MH	0.30	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.7400e-004	1.7900e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.11	0.08
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.33	0.10
tblVehicleEF	MHD	0.02	3.5790e-003
tblVehicleEF	MHD	4.0660e-003	1.6940e-003
tblVehicleEF	MHD	0.04	9.1320e-003
tblVehicleEF	MHD	0.37	0.39
tblVehicleEF	MHD	0.33	0.23
tblVehicleEF	MHD	5.40	1.07
tblVehicleEF	MHD	133.37	72.08
tblVehicleEF	MHD	1,186.25	1,080.76
tblVehicleEF	MHD	60.77	9.15
tblVehicleEF	MHD	0.36	0.41
tblVehicleEF	MHD	1.10	1.45
tblVehicleEF	MHD	10.18	1.70
tblVehicleEF	MHD	1.0800e-004	3.6900e-004
tblVehicleEF	MHD	3.1100e-003	7.0230e-003
tblVehicleEF	MHD	8.7400e-004	1.1500e-004
tblVehicleEF	MHD	1.0300e-004	3.5300e-004
tblVehicleEF	MHD	2.9690e-003	6.7130e-003
tblVehicleEF	MHD	8.0400e-004	1.0600e-004
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.32	0.05
tblVehicleEF	MHD	1.2850e-003	6.8400e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0200e-004	9.1000e-005
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.35	0.05
tblVehicleEF	OBUS	0.01	7.0640e-003
tblVehicleEF	OBUS	5.8410e-003	3.6240e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.41	0.43
tblVehicleEF	OBUS	4.81	1.84
tblVehicleEF	OBUS	100.21	92.66
tblVehicleEF	OBUS	1,290.88	1,326.08
tblVehicleEF	OBUS	66.64	15.18
tblVehicleEF	OBUS	0.21	0.38
tblVehicleEF	OBUS	0.91	1.47
tblVehicleEF	OBUS	2.68	1.09
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004
tblVehicleEF	OBUS	2.7550e-003	7.3930e-003
tblVehicleEF	OBUS	8.3600e-004	1.4500e-004
tblVehicleEF	OBUS	1.9000e-005	1.1700e-004

tblVehicleEF	OBUS	2.6160e-003	7.0600e-003
tblVehicleEF	OBUS	7.6900e-004	1.3300e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.30	0.09
tblVehicleEF	OBUS	9.6800e-004	8.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5100e-004	1.5000e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.33	0.10
tblVehicleEF	SBUS	0.82	0.05
tblVehicleEF	SBUS	0.02	6.0180e-003
tblVehicleEF	SBUS	0.07	4.9720e-003
tblVehicleEF	SBUS	8.25	2.27
tblVehicleEF	SBUS	0.95	0.49
tblVehicleEF	SBUS	9.30	0.72
tblVehicleEF	SBUS	1,096.83	346.78
tblVehicleEF	SBUS	1,045.14	1,049.23
tblVehicleEF	SBUS	56.99	4.12
tblVehicleEF	SBUS	7.84	3.44
tblVehicleEF	SBUS	3.38	4.65

tblVehicleEF	SBUS	11.88	0.86
tblVehicleEF	SBUS	6.9900e-003	3.6120e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	6.6880e-003	3.4560e-003
tblVehicleEF	SBUS	2.6210e-003	2.7190e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.4800e-004	4.4000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	0.98	0.25
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.10	0.08
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.46	0.03
tblVehicleEF	SBUS	0.01	3.3010e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.3000e-004	4.1000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	1.42	0.36
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.13	0.10
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.51	0.03
tblVehicleEF	UBUS	0.23	1.35
tblVehicleEF	UBUS	0.04	1.5380e-003
tblVehicleEF	UBUS	4.19	10.12
tblVehicleEF	UBUS	7.24	0.14

tblVehicleEF	UBUS	2,047.05	1,597.16
tblVehicleEF	UBUS	107.16	1.39
tblVehicleEF	UBUS	8.64	0.73
tblVehicleEF	UBUS	14.31	0.01
tblVehicleEF	UBUS	0.59	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.19	5.3280e-003
tblVehicleEF	UBUS	1.1060e-003	1.5000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.18	5.0960e-003
tblVehicleEF	UBUS	1.0170e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.45	0.02
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.55	6.4070e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.2020e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.73	1.38
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.61	7.0150e-003
tblVehicleTrips	ST_TR	2.20	1.90
tblVehicleTrips	SU_TR	2.44	2.11
tblVehicleTrips	WD_TR	2.74	2.36
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	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					
2021	0.0268	0.2691	0.2681	4.10E-04	0.0508	0.0145	0.0653	0.0255	0.0134	0.0388	0	35.7146	35.7146	0.0114	0	35.999
2022	1.0125	0.919	1.1	1.70E-03	0	0.0524	0.0524	0	0.0501	0.0501	0	146.9179	146.9179	0.0284	0	147.6268
2023	0.5362	0.3647	0.489	7.70E-04	0	0.0193	0.0193	0	0.0186	0.0186	0	66.628	66.628	0.011	0	66.9037
Maximum	**1.0125**	**0.919**	**1.1**	**1.70E-03**	**0.0508**	**0.0524**	**0.0653**	**0.0255**	**0.0501**	**0.0501**	**0**	**146.9179**	**146.9179**	**0.0284**	**0**	**147.6268**

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					
2021	7.58E-03	0.1662	0.2917	4.10E-04	0.0229	6.60E-04	0.0235	5.73E-03	6.60E-04	6.39E-03	0	35.7146	35.7146	0.0114	0	35.999

2022	0.9343	0.6727	1.1395	1.70E-03	0	4.07E-03	4.07E-03	0	4.07E-03	4.07E-03	0	146.9178	146.9178	0.0284	0	147.6266
2023	0.5045	0.2998	0.5097	7.70E-04	0	1.76E-03	1.76E-03	0	1.76E-03	1.76E-03	0	66.6279	66.6279	0.011	0	66.9037
Maximum	**0.9343**	**0.6727**	**1.1395**	**1.70E-03**	**0.0229**	**4.07E-03**	**0.0235**	**5.73E-03**	**4.07E-03**	**6.39E-03**	**0**	**146.9178**	**146.9178**	**0.0284**	**0**	**147.6266**

	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	**8.19**	**26.67**	**-4.51**	**0**	**54.99**	**92.47**	**78.56**	**77.49**	**92.09**	**88.64**	**0**	**0**	**0**	**0**	**0**	**0**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-2-2021**	**11-1-2021**	0.2018	0.1064
2	**11-2-2021**	**2-1-2022**	0.1199	0.0874
3	**2-2-2022**	**5-1-2022**	0.1384	0.0904
4	**5-2-2022**	**8-1-2022**	0.3308	0.2632
5	**8-2-2022**	**11-1-2022**	0.8625	0.7441
6	**11-2-2022**	**2-1-2023**	0.8521	0.7441
7	**2-2-2023**	**5-1-2023**	0.6107	0.5447
		Highest	0.8625	0.7441

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	0.9511	0.0167	1.4485	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2800e-003	0.0000	2.4244
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	78.5356	78.5356	0.0109	2.2400e-003	79.4754
Mobile	0.1524	0.2398	1.2174	3.5200e-003	0.3780	2.8300e-003	0.3808	0.1011	2.6400e-003	0.1038	0.0000	342.8046	342.8046	0.0149	0.0000	343.1774
Stationary	9.6400e-003	0.0270	0.0246	5.0000e-005		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	4.4744	4.4744	6.3000e-004	0.0000	4.4901

Waste						0.0000	0.0000		0.0000	0.0000	36.1202	0.0000	36.1202	2.1346	0.0000	89.4863
Water						0.0000	0.0000		0.0000	0.0000	4.4951	9.2188	13.7139	0.0167	0.0100	17.1240
Total	**1.1131**	**0.2835**	**2.6905**	**3.6500e-003**	**0.3780**	**0.0123**	**0.3903**	**0.1011**	**0.0121**	**0.1132**	**40.6153**	**437.4009**	**478.0162**	**2.1801**	**0.0123**	**536.1775**

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	0.9511	0.0167	1.4485	8.00E-05		8.03E-03	8.03E-03		8.03E-03	8.03E-03	0	2.3675	2.3675	2.28E-03	0	2.4244
Energy	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Mobile	0.1524	0.2398	1.2174	3.52E-03	0.378	2.83E-03	0.3808	0.1011	2.64E-03	0.1038	0	342.8046	342.8046	0.0149	0	343.1774
Stationary	9.64E-03	0.027	0.0246	5.00E-05		1.42E-03	1.42E-03		1.42E-03	1.42E-03	0	4.4744	4.4744	6.30E-04	0	4.4901
Waste						0	0		0	0	36.1202	0	36.1202	2.1346	0	89.4863
Water						0	0		0	0	4.4951	9.2188	13.7139	0.0167	0.01	17.124
Total	**1.1131**	**0.2835**	**2.6905**	**3.65E-03**	**0.378**	**0.0123**	**0.3903**	**0.1011**	**0.0121**	**0.1132**	**40.6153**	**358.8653**	**399.4806**	**2.1692**	**0.01**	**456.7021**

	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**	**17.96**	**16.43**	**0.50**	**18.24**	**14.82**

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	8/2/2021	8/20/2021	5	15	
2	Site Preparation	Site Preparation	8/23/2021	9/17/2021	5	20	
3	Grading	Grading	9/20/2021	10/15/2021	5	20	
4	Trenching	Trenching	10/18/2021	1/7/2022	5	60	
5	Building Construction	Building Construction	1/10/2022	4/3/2023	5	321	
6	Architectural Coating	Architectural Coating	7/9/2022	4/5/2023	5	193	
7	Paving	Paving	3/15/2023	4/4/2023	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 396,576; Residential Outdoor: 132,192; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.30	81	0.73
Demolition	Excavators	2	6.40	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.40	97	0.37
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	0	0.00	158	0.38
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	2.70	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	5.30	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	2	6.70	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74

Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Aerial Lifts	1	3.10	63	0.31
Architectural Coating	Air Compressors	5	5.40	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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	4.3400e-003	0.0409	0.0573	9.0000e-005		2.1300e-003	2.1300e-003		1.9800e-003	1.9800e-003	0.0000	7.7383	7.7383	2.3300e-003	0.0000	7.7965
Total	**4.3400e-003**	**0.0409**	**0.0573**	**9.0000e-005**		**2.1300e-003**	**2.1300e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**7.7383**	**7.7383**	**2.3300e-003**	**0.0000**	**7.7965**

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	1.3200e-003	0.0382	0.0658	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.7383	7.7383	2.3300e-003	0.0000	7.7965
Total	**1.3200e-003**	**0.0382**	**0.0658**	**9.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.7383**	**7.7383**	**2.3300e-003**	**0.0000**	**7.7965**

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7500e-003	0.0379	0.0452	6.0000e-005		2.2400e-003	2.2400e-003		2.0600e-003	2.0600e-003	0.0000	5.4594	5.4594	1.7700e-003	0.0000	5.5036
Total	**3.7500e-003**	**0.0379**	**0.0452**	**6.0000e-005**	**0.0000**	**2.2400e-003**	**2.2400e-003**	**0.0000**	**2.0600e-003**	**2.0600e-003**	**0.0000**	**5.4594**	**5.4594**	**1.7700e-003**	**0.0000**	**5.5036**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3900e-003	0.0271	0.0468	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4594	5.4594	1.7700e-003	0.0000	5.5036
Total	**1.3900e-003**	**0.0271**	**0.0468**	**6.0000e-005**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**5.4594**	**5.4594**	**1.7700e-003**	**0.0000**	**5.5036**

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**

3.4 Grading - 2021

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					0.0508	0.0000	0.0508	0.0255	0.0000	0.0255	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0508**	**5.1100e-003**	**0.0559**	**0.0255**	**4.7000e-003**	**0.0302**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0229	0.0000	0.0229	5.7300e-003	0.0000	5.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7400e-003	0.0304	0.0574	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**1.7400e-003**	**0.0304**	**0.0574**	**1.0000e-004**	**0.0229**	**1.6000e-004**	**0.0230**	**5.7300e-003**	**1.6000e-004**	**5.8900e-003**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

Mitigated Construction Off-Site

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

3.5 Trenching - 2021

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	8.9500e-003	0.0891	0.1127	1.6000e-004		5.0400e-003	5.0400e-003		4.6400e-003	4.6400e-003	0.0000	14.1579	14.1579	4.5800e-003	0.0000	14.2724
Total	**8.9500e-003**	**0.0891**	**0.1127**	**1.6000e-004**		**5.0400e-003**	**5.0400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**14.1579**	**14.1579**	**4.5800e-003**	**0.0000**	**14.2724**

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	3.1300e-003	0.0705	0.1217	1.6000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	14.1579	14.1579	4.5800e-003	0.0000	14.2724
Total	**3.1300e-003**	**0.0705**	**0.1217**	**1.6000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**14.1579**	**14.1579**	**4.5800e-003**	**0.0000**	**14.2724**

Mitigated Construction Off-Site

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

3.5 Trenching - 2022

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	7.2000e-004	7.0500e-003	0.0102	1.0000e-005		3.7000e-004	3.7000e-004		3.4000e-004	3.4000e-004	0.0000	1.2880	1.2880	4.2000e-004	0.0000	1.2984

Total	**7.2000e-004**	**7.0500e-003**	**0.0102**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**1.2880**	**1.2880**	**4.2000e-004**	**0.0000**	**1.2984**

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	2.8000e-004	6.4100e-003	0.0111	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2880	1.2880	4.2000e-004	0.0000	1.2984
Total	**2.8000e-004**	**6.4100e-003**	**0.0111**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2880**	**1.2880**	**4.2000e-004**	**0.0000**	**1.2984**

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 - 2022

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	0.0530	0.5022	0.5533	8.1000e-004		0.0288	0.0288		0.0266	0.0266	0.0000	70.2468	70.2468	0.0221	0.0000	70.7995
Total	**0.0530**	**0.5022**	**0.5533**	**8.1000e-004**		**0.0288**	**0.0288**		**0.0266**	**0.0266**	**0.0000**	**70.2468**	**70.2468**	**0.0221**	**0.0000**	**70.7995**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0174	0.3454	0.5822	8.1000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	70.2467	70.2467	0.0221	0.0000	70.7994
Total	**0.0174**	**0.3454**	**0.5822**	**8.1000e-004**		**2.0000e-003**	**2.0000e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**70.2467**	**70.2467**	**0.0221**	**0.0000**	**70.7994**

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 - 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	0.0125	0.1190	0.1422	2.1000e-004		6.3500e-003	6.3500e-003		5.8600e-003	5.8600e-003	0.0000	18.1903	18.1903	5.7200e-003	0.0000	18.3332
Total	**0.0125**	**0.1190**	**0.1422**	**2.1000e-004**		**6.3500e-003**	**6.3500e-003**		**5.8600e-003**	**5.8600e-003**	**0.0000**	**18.1903**	**18.1903**	**5.7200e-003**	**0.0000**	**18.3332**

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	4.4900e-003	0.0894	0.1507	2.1000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	18.1903	18.1903	5.7200e-003	0.0000	18.3332
Total	**4.4900e-003**	**0.0894**	**0.1507**	**2.1000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**18.1903**	**18.1903**	**5.7200e-003**	**0.0000**	**18.3332**

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 - 2022

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Archit. Coating	0.9004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0584	0.4097	0.5366	8.8000e-004		0.0232	0.0232		0.0232	0.0232	0.0000	75.3832	75.3832	5.8300e-003	0.0000	75.5289
Total	**0.9588**	**0.4097**	**0.5366**	**8.8000e-004**		**0.0232**	**0.0232**		**0.0232**	**0.0232**	**0.0000**	**75.3832**	**75.3832**	**5.8300e-003**	**0.0000**	**75.5289**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.3209	0.5462	8.8000e-004		2.0500e-003	2.0500e-003		2.0500e-003	2.0500e-003	0.0000	75.3831	75.3831	5.8300e-003	0.0000	75.5288

Total	**0.9167**	**0.3209**	**0.5462**	**8.8000e-004**		**2.0500e-003**	**2.0500e-003**		**2.0500e-003**	**2.0500e-003**	**0.0000**	**75.3831**	**75.3831**	**5.8300e-003**	**0.0000**	**75.5288**

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 - 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					
Archit. Coating	0.4898					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0298	0.2064	0.2915	4.8000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	41.0084	41.0084	2.9700e-003	0.0000	41.0826
Total	**0.5196**	**0.2064**	**0.2915**	**4.8000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**41.0084**	**41.0084**	**2.9700e-003**	**0.0000**	**41.0826**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4898					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8800e-003	0.1746	0.2972	4.8000e-004		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	41.0084	41.0084	2.9700e-003	0.0000	41.0825
Total	**0.4987**	**0.1746**	**0.2972**	**4.8000e-004**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**41.0084**	**41.0084**	**2.9700e-003**	**0.0000**	**41.0825**

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 - 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	4.0900e-003	0.0394	0.0553	9.0000e-005		1.9400e-003	1.9400e-003		1.7900e-003	1.7900e-003	0.0000	7.4293	7.4293	2.3500e-003	0.0000	7.4879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0900e-003**	**0.0394**	**0.0553**	**9.0000e-005**		**1.9400e-003**	**1.9400e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**7.4293**	**7.4293**	**2.3500e-003**	**0.0000**	**7.4879**

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	1.3300e-003	0.0359	0.0618	9.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	7.4293	7.4293	2.3500e-003	0.0000	7.4879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.3300e-003**	**0.0359**	**0.0618**	**9.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**7.4293**	**7.4293**	**2.3500e-003**	**0.0000**	**7.4879**

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

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	0.1524	0.2398	1.2174	3.5200e-003	0.3780	2.8300e-003	0.3808	0.1011	2.6400e-003	0.1038	0.0000	342.8046	342.8046	0.0149	0.0000	343.1774
Unmitigated	0.1524	0.2398	1.2174	3.5200e-003	0.3780	2.8300e-003	0.3808	0.1011	2.6400e-003	0.1038	0.0000	342.8046	342.8046	0.0149	0.0000	343.1774

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	460.20	370.50	411.45	1,017,201	1,017,201
Parking Lot	0.00	0.00	0.00		
Total	460.20	370.50	411.45	1,017,201	1,017,201

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
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
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
Congregate Care (Assisted Living)	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Parking Lot	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752

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	78.5356	78.5356	0.0109	2.2400e-003	79.4754
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

	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					
Congregate Care (Assisted Living)	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
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		**0.0000**	**0.0000**	**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					
Congregate Care (Assisted Living)	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
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	805028	76.6825	0.0106	2.1900e-003	77.6001
Parking Lot	19454.4	1.8531	2.6000e-004	5.0000e-005	1.8753
Total		**78.5356**	**0.0109**	**2.2400e-003**	**79.4754**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	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

No Hearths Installed

	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	0.9511	0.0167	1.4485	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2800e-003	0.0000	2.4244
Unmitigated	0.9511	0.0167	1.4485	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2800e-003	0.0000	2.4244

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					
Architectural Coating	0.1390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0436	0.0167	1.4485	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2800e-003	0.0000	2.4244
Total	**0.9511**	**0.0167**	**1.4485**	**8.0000e-005**		**8.0300e-003**	**8.0300e-003**		**8.0300e-003**	**8.0300e-003**	**0.0000**	**2.3675**	**2.3675**	**2.2800e-003**	**0.0000**	**2.4244**

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	0.1390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0436	0.0167	1.4485	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2800e-003	0.0000	2.4244
Total	**0.9511**	**0.0167**	**1.4485**	**8.0000e-005**		**8.0300e-003**	**8.0300e-003**		**8.0300e-003**	**8.0300e-003**	**0.0000**	**2.3675**	**2.3675**	**2.2800e-003**	**0.0000**	**2.4244**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	13.7139	0.0167	0.0100	17.1240
Unmitigated	13.7139	0.0167	0.0100	17.1240

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	12.705 / 8.0097	13.7139	0.0167	0.0100	17.1240
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.7139**	**0.0167**	**0.0100**	**17.1240**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	12.705 / 8.0097	13.7139	0.0167	0.0100	17.1240
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.7139**	**0.0167**	**0.0100**	**17.1240**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	36.1202	2.1346	0.0000	89.4863
Unmitigated	36.1202	2.1346	0.0000	89.4863

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	177.94	36.1202	2.1346	0.0000	89.4863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**36.1202**	**2.1346**	**0.0000**	**89.4863**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	177.94	36.1202	2.1346	0.0000	89.4863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**36.1202**	**2.1346**	**0.0000**	**89.4863**

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
Emergency Generator	1	0	50	235	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

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

Emergency Generator - Diesel (175 - 300 HP)	9.6400e-003	0.0270	0.0246	5.0000e-005		1.4200e-003	1.42E-03		1.4200e-003	1.4200e-003	0.0000	4.4744	4.4744	6.3000e-004	0.0000	4.4901
Total	**9.6400e-003**	**0.0270**	**0.0246**	**5.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**4.4744**	**4.4744**	**6.3000e-004**	**0.0000**	**4.4901**

11.0 Vegetation

20-039 San José Senior Living - 2030 GHG - Santa Clara County, Annual

20-039 San José Senior Living - 2030 GHG

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	133.00	Space	0.00	55,584.00	0
Congregate Care (Assisted Living)	195.00	Dwelling Unit	3.57	195,840.00	558

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 210 rate

Land Use - Congregate Care: 195 DU (195,840 total SF, includes the amenities and mechnical and BOH). Parking Lot: 133 spaces (55,584 total SF)

Construction Phase - Project Applicant Construction Schedule

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Off-road Equipment - Project Applicant Equipment List and Usage

Trips and VMT - EMFAC2017 for Construction Trip/Hauling Emissions

Demolition - Demolish 48,216 sqft

Grading - Export = 2037 cy, Import = 4074 cy

Vehicle Trips - 195 beds/461 net trips: 2.36 weekday, 1.90 saturday, 2.11 sunday

Vehicle Emission Factors - EMFAC2017 Emission Factors for Santa Clara County 2030

Woodstoves - No hearths or gas

Energy Use - San Jose Natural Gas Infrastrucutre Prohibition effective Jan 1, 2020. https://www.sanjoseca.gov/home/showdocument?id=45668

Water And Wastewater - WTP 100%

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

Energy Mitigation - Reach Code SJ 100% carbon free electricity

Stationary Sources - Emergency Generators and Fire Pumps - 175 kW generator (approximately 235 HP)

Area Mitigation - No Hearths

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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
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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	18.00	193.00
tblConstructionPhase	NumDays	230.00	321.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	15.00
tblConstructionPhase	NumDays	5.00	20.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	NumberGas	29.25	0.00
tblFireplaces	NumberNoFireplace	7.80	0.00
tblFireplaces	NumberWood	33.15	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05

tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0600e-003	5.5563e-003
tblFleetMix	LHD2	5.0600e-003	5.5563e-003
tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	2,037.00
tblGrading	MaterialImported	0.00	4,074.00
tblLandUse	LandUseSquareFeet	53,200.00	55,584.00
tblLandUse	LandUseSquareFeet	195,000.00	195,840.00
tblLandUse	LotAcreage	1.20	0.00
tblLandUse	LotAcreage	12.19	3.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
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tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	235.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	4,768.00	0.00
tblTripsAndVMT	HaulingTripNumber	764.00	0.00

tblTripsAndVMT	VendorTripNumber	30.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	164.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleEF	HHD	0.27	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.43	6.28
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	4.01	6.6850e-003
tblVehicleEF	HHD	4,037.05	930.05
tblVehicleEF	HHD	1,498.85	1,226.35
tblVehicleEF	HHD	12.27	0.05
tblVehicleEF	HHD	12.16	5.20
tblVehicleEF	HHD	1.59	2.52
tblVehicleEF	HHD	19.20	2.31
tblVehicleEF	HHD	3.6830e-003	2.1460e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.6600e-003	0.02
tblVehicleEF	HHD	1.3500e-004	1.0000e-006
tblVehicleEF	HHD	3.5230e-003	2.0530e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8550e-003	8.9050e-003
tblVehicleEF	HHD	5.4140e-003	0.02
tblVehicleEF	HHD	1.2400e-004	1.0000e-006

tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.37	0.42
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.6530e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8800e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.43	0.49
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.08	2.0000e-006
tblVehicleEF	LDA	1.8990e-003	9.5900e-004
tblVehicleEF	LDA	2.1050e-003	0.03
tblVehicleEF	LDA	0.33	0.41
tblVehicleEF	LDA	0.63	1.72
tblVehicleEF	LDA	181.37	213.89
tblVehicleEF	LDA	42.51	45.13
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.1470e-003	9.2900e-004
tblVehicleEF	LDA	1.8260e-003	1.2750e-003
tblVehicleEF	LDA	1.0560e-003	8.5500e-004
tblVehicleEF	LDA	1.6790e-003	1.1720e-003
tblVehicleEF	LDA	0.02	0.02

tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	4.7560e-003	3.2470e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	1.8150e-003	9.0000e-005
tblVehicleEF	LDA	4.3500e-004	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	6.9190e-003	4.7160e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDT1	3.6800e-003	1.6710e-003
tblVehicleEF	LDT1	4.5270e-003	0.04
tblVehicleEF	LDT1	0.55	0.54
tblVehicleEF	LDT1	1.12	1.85
tblVehicleEF	LDT1	233.07	258.41
tblVehicleEF	LDT1	54.62	55.17
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	1.4520e-003	1.0700e-003
tblVehicleEF	LDT1	2.1870e-003	1.4610e-003
tblVehicleEF	LDT1	1.3350e-003	9.8400e-004
tblVehicleEF	LDT1	2.0110e-003	1.3440e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	9.1170e-003	6.5000e-003
tblVehicleEF	LDT1	0.09	0.36

tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.3350e-003	2.5670e-003
tblVehicleEF	LDT1	5.6500e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	9.4830e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT2	2.9960e-003	1.7260e-003
tblVehicleEF	LDT2	3.1970e-003	0.04
tblVehicleEF	LDT2	0.49	0.56
tblVehicleEF	LDT2	0.89	2.29
tblVehicleEF	LDT2	264.16	267.33
tblVehicleEF	LDT2	61.38	57.57
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	1.3060e-003	1.0250e-003
tblVehicleEF	LDT2	2.0190e-003	1.3400e-003
tblVehicleEF	LDT2	1.2010e-003	9.4400e-004
tblVehicleEF	LDT2	1.8570e-003	1.2320e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.4390e-003	6.5530e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.04	0.18
tblVehicleEF	LDT2	2.6450e-003	9.4800e-003
tblVehicleEF	LDT2	6.2800e-004	8.5000e-005
tblVehicleEF	LDT2	0.03	0.05

tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	9.5240e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LHD1	3.9820e-003	4.1480e-003
tblVehicleEF	LHD1	8.6490e-003	5.1950e-003
tblVehicleEF	LHD1	0.01	9.0230e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.61	0.47
tblVehicleEF	LHD1	1.67	0.89
tblVehicleEF	LHD1	8.93	8.25
tblVehicleEF	LHD1	641.43	698.55
tblVehicleEF	LHD1	26.94	10.09
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.53	0.30
tblVehicleEF	LHD1	0.67	0.23
tblVehicleEF	LHD1	7.8900e-004	9.1500e-004
tblVehicleEF	LHD1	0.01	9.9010e-003
tblVehicleEF	LHD1	0.01	7.0190e-003
tblVehicleEF	LHD1	6.6500e-004	2.1000e-004
tblVehicleEF	LHD1	7.5500e-004	8.7500e-004
tblVehicleEF	LHD1	2.6030e-003	2.4750e-003
tblVehicleEF	LHD1	9.7020e-003	6.6710e-003
tblVehicleEF	LHD1	6.1100e-004	1.9300e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.10	0.07

tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.15	0.04
tblVehicleEF	LHD1	8.9000e-005	8.0000e-005
tblVehicleEF	LHD1	6.2670e-003	6.8120e-003
tblVehicleEF	LHD1	3.0000e-004	1.0000e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD2	2.5430e-003	2.5050e-003
tblVehicleEF	LHD2	5.3180e-003	5.3390e-003
tblVehicleEF	LHD2	3.2330e-003	4.8110e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.45	0.49
tblVehicleEF	LHD2	0.88	0.48
tblVehicleEF	LHD2	13.62	13.00
tblVehicleEF	LHD2	675.95	679.81
tblVehicleEF	LHD2	21.83	6.44
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.22	0.38
tblVehicleEF	LHD2	0.26	0.12
tblVehicleEF	LHD2	1.0460e-003	1.5020e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.3120e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0600e-004
tblVehicleEF	LHD2	1.0000e-003	1.4370e-003
tblVehicleEF	LHD2	2.7080e-003	2.7110e-003

tblVehicleEF	LHD2	8.8860e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.8000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2400e-004
tblVehicleEF	LHD2	6.5670e-003	6.5570e-003
tblVehicleEF	LHD2	2.3300e-004	6.4000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.52	17.61
tblVehicleEF	MCY	10.34	9.20
tblVehicleEF	MCY	171.38	209.76
tblVehicleEF	MCY	42.85	59.23
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1570e-003	2.1380e-003
tblVehicleEF	MCY	3.3210e-003	2.8620e-003
tblVehicleEF	MCY	2.0120e-003	1.9940e-003

tblVehicleEF	MCY	3.1070e-003	2.6760e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.12	2.13
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.11	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.5900e-004	5.8600e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.66	2.67
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.30	2.04
tblVehicleEF	MDV	5.1180e-003	1.7720e-003
tblVehicleEF	MDV	7.2260e-003	0.04
tblVehicleEF	MDV	0.68	0.55
tblVehicleEF	MDV	1.51	2.32
tblVehicleEF	MDV	358.67	322.27
tblVehicleEF	MDV	82.28	67.92
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.3880e-003	1.0340e-003
tblVehicleEF	MDV	2.0820e-003	1.3440e-003
tblVehicleEF	MDV	1.2780e-003	9.5400e-004
tblVehicleEF	MDV	1.9150e-003	1.2360e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06

tblVehicleEF	MDV	0.01	6.8870e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	3.5870e-003	2.9760e-003
tblVehicleEF	MDV	8.4800e-004	6.2800e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.9830e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MH	8.2310e-003	5.0270e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.45	0.31
tblVehicleEF	MH	3.72	1.64
tblVehicleEF	MH	1,184.19	1,350.27
tblVehicleEF	MH	56.79	15.54
tblVehicleEF	MH	0.84	1.06
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.8300e-004	2.1200e-004
tblVehicleEF	MH	3.2210e-003	3.2970e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.1200e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.54

tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3200e-004	1.5400e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.24	0.08
tblVehicleEF	MHD	0.02	3.8320e-003
tblVehicleEF	MHD	2.7470e-003	1.0340e-003
tblVehicleEF	MHD	0.03	8.3830e-003
tblVehicleEF	MHD	0.37	0.41
tblVehicleEF	MHD	0.25	0.15
tblVehicleEF	MHD	3.74	0.87
tblVehicleEF	MHD	131.96	65.10
tblVehicleEF	MHD	1,167.79	993.45
tblVehicleEF	MHD	59.45	8.55
tblVehicleEF	MHD	0.34	0.34
tblVehicleEF	MHD	1.04	1.43
tblVehicleEF	MHD	9.99	1.69
tblVehicleEF	MHD	5.2000e-005	1.6200e-004
tblVehicleEF	MHD	3.0080e-003	7.0060e-003
tblVehicleEF	MHD	8.2100e-004	1.1200e-004
tblVehicleEF	MHD	5.0000e-005	1.5500e-004
tblVehicleEF	MHD	2.8710e-003	6.6960e-003
tblVehicleEF	MHD	7.5400e-004	1.0300e-004
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.23	0.04
tblVehicleEF	MHD	1.2710e-003	6.1800e-004
tblVehicleEF	MHD	0.01	9.4800e-003
tblVehicleEF	MHD	6.6000e-004	8.5000e-005
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	7.0980e-003
tblVehicleEF	OBUS	4.0840e-003	2.1970e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.30	0.26
tblVehicleEF	OBUS	4.08	1.58
tblVehicleEF	OBUS	110.55	97.36
tblVehicleEF	OBUS	1,272.30	1,210.85
tblVehicleEF	OBUS	64.94	13.46
tblVehicleEF	OBUS	0.24	0.43
tblVehicleEF	OBUS	0.85	1.45
tblVehicleEF	OBUS	2.74	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4200e-004
tblVehicleEF	OBUS	2.8340e-003	7.8820e-003
tblVehicleEF	OBUS	9.3800e-004	1.5600e-004
tblVehicleEF	OBUS	2.1000e-005	1.3600e-004

tblVehicleEF	OBUS	2.6900e-003	7.5260e-003
tblVehicleEF	OBUS	8.6200e-004	1.4400e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0660e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2100e-004	1.3300e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.28	0.08
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	7.6490e-003	4.4040e-003
tblVehicleEF	SBUS	0.06	6.3380e-003
tblVehicleEF	SBUS	8.87	2.93
tblVehicleEF	SBUS	0.48	0.37
tblVehicleEF	SBUS	7.57	0.86
tblVehicleEF	SBUS	1,023.58	337.48
tblVehicleEF	SBUS	1,008.60	970.50
tblVehicleEF	SBUS	61.81	5.06
tblVehicleEF	SBUS	4.35	2.71
tblVehicleEF	SBUS	1.72	3.09

tblVehicleEF	SBUS	10.76	1.18
tblVehicleEF	SBUS	2.1870e-003	2.0480e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4940e-003	0.02
tblVehicleEF	SBUS	1.1020e-003	6.8000e-005
tblVehicleEF	SBUS	2.0920e-003	1.9600e-003
tblVehicleEF	SBUS	2.5880e-003	2.6690e-003
tblVehicleEF	SBUS	8.1060e-003	0.02
tblVehicleEF	SBUS	1.0130e-003	6.2000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.05	0.32
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.01	3.2190e-003
tblVehicleEF	SBUS	9.7440e-003	9.2880e-003
tblVehicleEF	SBUS	7.4900e-004	5.0000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.53	0.46
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.43	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.1860e-003
tblVehicleEF	UBUS	3.04	14.11
tblVehicleEF	UBUS	7.59	0.14

tblVehicleEF	UBUS	1,937.16	1,668.67
tblVehicleEF	UBUS	126.43	1.40
tblVehicleEF	UBUS	4.75	0.71
tblVehicleEF	UBUS	13.02	0.02
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.10	5.1160e-003
tblVehicleEF	UBUS	1.3960e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.10	4.8930e-003
tblVehicleEF	UBUS	1.2840e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.65	9.2610e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.4020e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.48	1.90
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.71	0.01
tblVehicleTrips	ST_TR	2.20	1.90
tblVehicleTrips	SU_TR	2.44	2.11
tblVehicleTrips	WD_TR	2.74	2.36
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	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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	0.9508	0.0167	1.4453	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2600e-003	0.0000	2.4240
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	78.5356	78.5356	0.0109	2.2400e-003	79.4754
Mobile	0.1138	0.1979	0.9748	3.1500e-003	0.3781	2.2800e-003	0.3804	0.1012	2.1400e-003	0.1033	0.0000	304.7596	304.7596	0.0115	0.0000	305.0475
Stationary	9.6400e-003	0.0270	0.0246	5.0000e-005		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	4.4744	4.4744	6.3000e-004	0.0000	4.4901
Waste						0.0000	0.0000		0.0000	0.0000	36.1202	0.0000	36.1202	2.1346	0.0000	89.4863
Water						0.0000	0.0000		0.0000	0.0000	4.4951	9.2188	13.7139	0.0167	0.0100	17.1240
Total	**1.0742**	**0.2416**	**2.4447**	**3.2800e-003**	**0.3781**	**0.0117**	**0.3898**	**0.1012**	**0.0116**	**0.1128**	**40.6153**	**399.3558**	**439.9711**	**2.1766**	**0.0123**	**498.0473**

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	0.9508	0.0167	1.4453	8.00E-05		8.03E-03	8.03E-03		8.03E-03	8.03E-03	0	2.3675	2.3675	2.26E-03	0	2.424
Energy	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Mobile	0.1138	0.1979	0.9748	3.15E-03	0.3781	2.28E-03	0.3804	0.1012	2.14E-03	0.1033	0	304.7596	304.7596	0.0115	0	305.0475
Stationary	9.64E-03	0.027	0.0246	5.00E-05		1.42E-03	1.42E-03		1.42E-03	1.42E-03	0	4.4744	4.4744	6.30E-04	0	4.4901
Waste						0	0		0	0	36.1202	0	36.1202	2.1346	0	89.4863
Water						0	0		0	0	4.4951	9.2188	13.7139	0.0167	0.01	17.124
Total	**1.0742**	**0.2416**	**2.4447**	**3.28E-03**	**0.3781**	**0.0117**	**0.3898**	**0.1012**	**0.0116**	**0.1128**	**40.6153**	**320.8202**	**361.4355**	**2.1658**	**0.01**	**418.5719**

	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**	**19.67**	**17.85**	**0.50**	**18.24**	**15.96**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1138	0.1979	0.9748	3.1500e-003	0.3781	2.2800e-003	0.3804	0.1012	2.1400e-003	0.1033	0.0000	304.7596	304.7596	0.0115	0.0000	305.0475
Unmitigated	0.1138	0.1979	0.9748	3.1500e-003	0.3781	2.2800e-003	0.3804	0.1012	2.1400e-003	0.1033	0.0000	304.7596	304.7596	0.0115	0.0000	305.0475

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	460.20	370.50	411.45	1,017,201	1,017,201
Parking Lot	0.00	0.00	0.00		
Total	460.20	370.50	411.45	1,017,201	1,017,201

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
Congregate Care (Assisted Living)	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
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
Congregate Care (Assisted Living)	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Parking Lot	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728

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	78.5356	78.5356	0.0109	2.2400e-003	79.4754
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

	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					
Congregate Care (Assisted Living)	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
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		**0.0000**	**0.0000**	**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					
Congregate Care (Assisted Living)	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
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	805028	76.6825	0.0106	2.1900e-003	77.6001
Parking Lot	19454.4	1.8531	2.6000e-004	5.0000e-005	1.8753
Total		**78.5356**	**0.0109**	**2.2400e-003**	**79.4754**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	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

No Hearths Installed

	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	0.9508	0.0167	1.4453	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2600e-003	0.0000	2.4240
Unmitigated	0.9508	0.0167	1.4453	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2600e-003	0.0000	2.4240

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					
Architectural Coating	0.1390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0433	0.0167	1.4453	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2600e-003	0.0000	2.4240
Total	**0.9508**	**0.0167**	**1.4453**	**8.0000e-005**		**8.0300e-003**	**8.0300e-003**		**8.0300e-003**	**8.0300e-003**	**0.0000**	**2.3675**	**2.3675**	**2.2600e-003**	**0.0000**	**2.4240**

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	0.1390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0433	0.0167	1.4453	8.0000e-005		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	2.3675	2.3675	2.2600e-003	0.0000	2.4240
Total	**0.9508**	**0.0167**	**1.4453**	**8.0000e-005**		**8.0300e-003**	**8.0300e-003**		**8.0300e-003**	**8.0300e-003**	**0.0000**	**2.3675**	**2.3675**	**2.2600e-003**	**0.0000**	**2.4240**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.7139	0.0167	0.0100	17.1240
Unmitigated	13.7139	0.0167	0.0100	17.1240

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	12.705 / 8.0097	13.7139	0.0167	0.0100	17.1240
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.7139**	**0.0167**	**0.0100**	**17.1240**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	12.705 / 8.0097	13.7139	0.0167	0.0100	17.1240
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.7139**	**0.0167**	**0.0100**	**17.1240**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	36.1202	2.1346	0.0000	89.4863
Unmitigated	36.1202	2.1346	0.0000	89.4863

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	177.94	36.1202	2.1346	0.0000	89.4863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**36.1202**	**2.1346**	**0.0000**	**89.4863**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	177.94	36.1202	2.1346	0.0000	89.4863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**36.1202**	**2.1346**	**0.0000**	**89.4863**

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
Emergency Generator	1	0	50	235	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	9.6400e-003	0.0270	0.0246	5.0000e-005		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	4.4744	4.4744	6.3000e-004	0.0000	4.4901
Total	**9.6400e-003**	**0.0270**	**0.0246**	**5.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**4.4744**	**4.4744**	**6.3000e-004**	**0.0000**	**4.4901**

11.0 Vegetation

20-039 SRM San Jose Assisted Living - Existing AQ/GHG

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	47.12	1000sqft	3.57	47,124.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2017 210 Rate

Land Use - Existing multi-tenant office building

Construction Phase - No construction

Off-road Equipment - No construction equipment

Vehicle Trips - 47.124 ksf/418 net trips: 8.87 weekday, 1.98 Saturday, 0.84 Sunday

Vehicle Emission Factors - 2024 EMFAC2017 Santa Clara County

Energy Use -

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0150e-003	5.3030e-003
tblFleetMix	MCY	5.2490e-003	5.0760e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	7.0400e-004	7.5200e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.1770e-003	1.5890e-003
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblLandUse	LandUseSquareFeet	47,120.00	47,124.00
tblLandUse	LotAcreage	1.08	3.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleEF	HHD	0.33	0.02
tblVehicleEF	HHD	0.05	0.05
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	HHD	1.57	6.33
tblVehicleEF	HHD	0.92	0.40
tblVehicleEF	HHD	3.67	5.9420e-003
tblVehicleEF	HHD	4,319.24	1,048.88
tblVehicleEF	HHD	1,548.08	1,413.90
tblVehicleEF	HHD	11.68	0.05

tblVehicleEF	HHD	13.63	5.39
tblVehicleEF	HHD	1.93	2.69
tblVehicleEF	HHD	19.37	2.32
tblVehicleEF	HHD	7.2790e-003	2.5820e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1410e-003	0.02
tblVehicleEF	HHD	1.0800e-004	1.0000e-006
tblVehicleEF	HHD	6.9640e-003	2.4710e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8360e-003	8.8830e-003
tblVehicleEF	HHD	5.8750e-003	0.02
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.41	0.43
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.09	2.0000e-006
tblVehicleEF	HHD	0.04	9.7610e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.7700e-004	0.00
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.10	3.0000e-006

tblVehicleEF	LDA	3.0460e-003	1.7200e-003
tblVehicleEF	LDA	4.1440e-003	0.04
tblVehicleEF	LDA	0.47	0.53
tblVehicleEF	LDA	0.98	2.09
tblVehicleEF	LDA	224.31	239.45
tblVehicleEF	LDA	52.96	50.82
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.17
tblVehicleEF	LDA	1.5950e-003	1.2960e-003
tblVehicleEF	LDA	2.2180e-003	1.6800e-003
tblVehicleEF	LDA	1.4690e-003	1.1940e-003
tblVehicleEF	LDA	2.0400e-003	1.5440e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	7.6460e-003	6.4160e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2460e-003	9.3000e-005
tblVehicleEF	LDA	5.4600e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	9.3280e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.9850e-003	3.6010e-003
tblVehicleEF	LDT1	9.7160e-003	0.06
tblVehicleEF	LDT1	0.91	0.85
tblVehicleEF	LDT1	2.05	2.27

tblVehicleEF	LDT1	281.97	286.67
tblVehicleEF	LDT1	66.03	61.55
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.11	0.21
tblVehicleEF	LDT1	2.1030e-003	1.6460e-003
tblVehicleEF	LDT1	2.8260e-003	2.1080e-003
tblVehicleEF	LDT1	1.9360e-003	1.5150e-003
tblVehicleEF	LDT1	2.5980e-003	1.9380e-003
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.8300e-003	2.6190e-003
tblVehicleEF	LDT1	6.9600e-004	0.00
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.14	0.30
tblVehicleEF	LDT2	4.5890e-003	2.9320e-003
tblVehicleEF	LDT2	5.7820e-003	0.06
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	1.32	2.70
tblVehicleEF	LDT2	319.72	308.00
tblVehicleEF	LDT2	74.64	66.71
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.25

tblVehicleEF	LDT2	1.6510e-003	1.3470e-003
tblVehicleEF	LDT2	2.3140e-003	1.7010e-003
tblVehicleEF	LDT2	1.5190e-003	1.2400e-003
tblVehicleEF	LDT2	2.1270e-003	1.5640e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.2020e-003	0.01
tblVehicleEF	LDT2	7.6800e-004	9.1000e-005
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	5.1130e-003	4.9880e-003
tblVehicleEF	LHD1	0.02	7.8580e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	0.94	0.71
tblVehicleEF	LHD1	2.42	1.05
tblVehicleEF	LHD1	8.98	8.86
tblVehicleEF	LHD1	679.88	779.34
tblVehicleEF	LHD1	31.45	11.55
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.00	0.65
tblVehicleEF	LHD1	0.94	0.30

tblVehicleEF	LHD1	8.5700e-004	8.4200e-004
tblVehicleEF	LHD1	0.01	9.7790e-003
tblVehicleEF	LHD1	0.01	9.6230e-003
tblVehicleEF	LHD1	9.0500e-004	2.4700e-004
tblVehicleEF	LHD1	8.2000e-004	8.0500e-004
tblVehicleEF	LHD1	2.5360e-003	2.4450e-003
tblVehicleEF	LHD1	0.01	9.1590e-003
tblVehicleEF	LHD1	8.3200e-004	2.2800e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.6000e-005
tblVehicleEF	LHD1	6.6680e-003	7.6080e-003
tblVehicleEF	LHD1	3.6000e-004	1.1400e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD2	3.1970e-003	3.0380e-003
tblVehicleEF	LHD2	7.0200e-003	6.6540e-003
tblVehicleEF	LHD2	5.9370e-003	7.7290e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.53	0.59

tblVehicleEF	LHD2	1.09	0.60
tblVehicleEF	LHD2	13.93	13.88
tblVehicleEF	LHD2	699.69	754.92
tblVehicleEF	LHD2	23.61	7.59
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.59	0.77
tblVehicleEF	LHD2	0.41	0.17
tblVehicleEF	LHD2	1.2120e-003	1.4370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0000e-004	1.2700e-004
tblVehicleEF	LHD2	1.1590e-003	1.3750e-003
tblVehicleEF	LHD2	2.6950e-003	2.6920e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6800e-004	1.1700e-004
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3600e-004	1.3300e-004
tblVehicleEF	LHD2	6.8030e-003	7.2890e-003
tblVehicleEF	LHD2	2.5500e-004	7.5000e-005
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.12	0.13

tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.47	18.60
tblVehicleEF	MCY	10.21	9.06
tblVehicleEF	MCY	170.05	210.08
tblVehicleEF	MCY	44.74	60.71
tblVehicleEF	MCY	1.14	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.0290e-003	1.9970e-003
tblVehicleEF	MCY	3.5220e-003	2.9300e-003
tblVehicleEF	MCY	1.8960e-003	1.8650e-003
tblVehicleEF	MCY	3.3110e-003	2.7520e-003
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.18	2.19
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.18	1.93
tblVehicleEF	MCY	2.0670e-003	2.0790e-003
tblVehicleEF	MCY	6.7900e-004	6.0100e-004
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.71	2.72
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.38	2.10
tblVehicleEF	MDV	8.4590e-003	3.4000e-003
tblVehicleEF	MDV	0.01	0.07

tblVehicleEF	MDV	0.97	0.78
tblVehicleEF	MDV	2.43	2.96
tblVehicleEF	MDV	429.38	372.42
tblVehicleEF	MDV	98.57	79.53
tblVehicleEF	MDV	0.12	0.07
tblVehicleEF	MDV	0.21	0.29
tblVehicleEF	MDV	1.7680e-003	1.4380e-003
tblVehicleEF	MDV	2.4430e-003	1.8100e-003
tblVehicleEF	MDV	1.6290e-003	1.3260e-003
tblVehicleEF	MDV	2.2460e-003	1.6640e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.18	0.34
tblVehicleEF	MDV	4.2980e-003	3.6060e-003
tblVehicleEF	MDV	1.0280e-003	7.7100e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	9.5570e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.61	0.93
tblVehicleEF	MH	5.16	2.03
tblVehicleEF	MH	1,207.03	1,501.42
tblVehicleEF	MH	58.43	18.14

tblVehicleEF	MH	1.20	1.31
tblVehicleEF	MH	0.77	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0680e-003	2.6100e-004
tblVehicleEF	MH	3.2200e-003	3.2790e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.8200e-004	2.4000e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.08	0.06
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.30	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.7400e-004	1.7900e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.11	0.08
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.33	0.10
tblVehicleEF	MHD	0.02	3.5790e-003
tblVehicleEF	MHD	4.0660e-003	1.6940e-003
tblVehicleEF	MHD	0.04	9.1320e-003
tblVehicleEF	MHD	0.37	0.39
tblVehicleEF	MHD	0.33	0.23
tblVehicleEF	MHD	5.40	1.07
tblVehicleEF	MHD	133.37	72.08
tblVehicleEF	MHD	1,186.25	1,080.76

tblVehicleEF	MHD	60.77	9.15
tblVehicleEF	MHD	0.36	0.41
tblVehicleEF	MHD	1.10	1.45
tblVehicleEF	MHD	10.18	1.70
tblVehicleEF	MHD	1.0800e-004	3.6900e-004
tblVehicleEF	MHD	3.1100e-003	7.0230e-003
tblVehicleEF	MHD	8.7400e-004	1.1500e-004
tblVehicleEF	MHD	1.0300e-004	3.5300e-004
tblVehicleEF	MHD	2.9690e-003	6.7130e-003
tblVehicleEF	MHD	8.0400e-004	1.0600e-004
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.32	0.05
tblVehicleEF	MHD	1.2850e-003	6.8400e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0200e-004	9.1000e-005
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.35	0.05
tblVehicleEF	OBUS	0.01	7.0640e-003
tblVehicleEF	OBUS	5.8410e-003	3.6240e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.41	0.43
tblVehicleEF	OBUS	4.81	1.84
tblVehicleEF	OBUS	100.21	92.66
tblVehicleEF	OBUS	1,290.88	1,326.08
tblVehicleEF	OBUS	66.64	15.18
tblVehicleEF	OBUS	0.21	0.38
tblVehicleEF	OBUS	0.91	1.47
tblVehicleEF	OBUS	2.68	1.09
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004
tblVehicleEF	OBUS	2.7550e-003	7.3930e-003
tblVehicleEF	OBUS	8.3600e-004	1.4500e-004
tblVehicleEF	OBUS	1.9000e-005	1.1700e-004
tblVehicleEF	OBUS	2.6160e-003	7.0600e-003
tblVehicleEF	OBUS	7.6900e-004	1.3300e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.30	0.09
tblVehicleEF	OBUS	9.6800e-004	8.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5100e-004	1.5000e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.05	0.03

tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.33	0.10
tblVehicleEF	SBUS	0.82	0.05
tblVehicleEF	SBUS	0.02	6.0180e-003
tblVehicleEF	SBUS	0.07	4.9720e-003
tblVehicleEF	SBUS	8.25	2.27
tblVehicleEF	SBUS	0.95	0.49
tblVehicleEF	SBUS	9.30	0.72
tblVehicleEF	SBUS	1,096.83	346.78
tblVehicleEF	SBUS	1,045.14	1,049.23
tblVehicleEF	SBUS	56.99	4.12
tblVehicleEF	SBUS	7.84	3.44
tblVehicleEF	SBUS	3.38	4.65
tblVehicleEF	SBUS	11.88	0.86
tblVehicleEF	SBUS	6.9900e-003	3.6120e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	6.6880e-003	3.4560e-003
tblVehicleEF	SBUS	2.6210e-003	2.7190e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.4800e-004	4.4000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	0.98	0.25
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.10	0.08
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.46	0.03
tblVehicleEF	SBUS	0.01	3.3010e-003

tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.3000e-004	4.1000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	1.42	0.36
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.13	0.10
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.51	0.03
tblVehicleEF	UBUS	0.23	1.35
tblVehicleEF	UBUS	0.04	1.5380e-003
tblVehicleEF	UBUS	4.19	10.12
tblVehicleEF	UBUS	7.24	0.14
tblVehicleEF	UBUS	2,047.05	1,597.16
tblVehicleEF	UBUS	107.16	1.39
tblVehicleEF	UBUS	8.64	0.73
tblVehicleEF	UBUS	14.31	0.01
tblVehicleEF	UBUS	0.59	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.19	5.3280e-003
tblVehicleEF	UBUS	1.1060e-003	1.5000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.18	5.0960e-003
tblVehicleEF	UBUS	1.0170e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.45	0.02
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004

tblVehicleEF	UBUS	0.55	6.4070e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.2020e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.73	1.38
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.61	7.0150e-003
tblVehicleTrips	ST_TR	2.46	1.98
tblVehicleTrips	SU_TR	1.05	0.84
tblVehicleTrips	WD_TR	11.03	8.87
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

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	0.2087	0	4.30E-04	0		0	0		0	0	0	8.40E-04	8.40E-04	0	0	9.00E-04
Energy	4.16E-03	0.0378	0.0318	2.30E-04		2.87E-03	2.87E-03		2.87E-03	2.87E-03	0	121.2006	121.2006	0.0118	3.04E-03	122.403
Mobile	0.1105	0.1771	0.8975	2.63E-03	0.282	2.10E-03	0.2841	0.0754	1.96E-03	0.0774	0	255.4022	255.4022	0.0109	0	255.6752
Waste						0	0		0	0	8.8951	0	8.8951	0.5257	0	22.0371

Water						0	0		0	0	2.963	6.0278	8.9909	0.011	6.62E-03	11.2382
Total	**0.3233**	**0.2149**	**0.9297**	**2.86E-03**	**0.282**	**4.97E-03**	**0.287**	**0.0754**	**4.83E-03**	**0.0803**	**11.8581**	**382.6315**	**394.4896**	**0.5595**	**9.66E-03**	**411.3544**

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	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	121.2006	121.2006	0.0118	3.0400e-003	122.4030
Mobile	0.1105	0.1771	0.8975	2.6300e-003	0.2820	2.1000e-003	0.2841	0.0754	1.9600e-003	0.0774	0.0000	255.4022	255.4022	0.0109	0.0000	255.6752
Waste						0.0000	0.0000		0.0000	0.0000	8.8951	0.0000	8.8951	0.5257	0.0000	22.0371
Water						0.0000	0.0000		0.0000	0.0000	2.9630	6.0278	8.9909	0.0110	6.6200e-003	11.2382
Total	**0.3233**	**0.2149**	**0.9297**	**2.8600e-003**	**0.2820**	**4.9700e-003**	**0.2870**	**0.0754**	**4.8300e-003**	**0.0803**	**11.8581**	**382.6315**	**394.4896**	**0.5595**	**9.6600e-003**	**411.3544**

	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
Category	tons/yr										MT/yr					
Mitigated	0.1105	0.1771	0.8975	2.6300e-003	0.2820	2.1000e-003	0.2841	0.0754	1.9600e-003	0.0774	0.0000	255.4022	255.4022	0.0109	0.0000	255.6752
Unmitigated	0.1105	0.1771	0.8975	2.6300e-003	0.2820	2.1000e-003	0.2841	0.0754	1.9600e-003	0.0774	0.0000	255.4022	255.4022	0.0109	0.0000	255.6752

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	417.95	93.30	39.58	758,798	758,798
Total	417.95	93.30	39.58	758,798	758,798

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures 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	80.0347	80.0347	0.0111	2.2900e-003	80.9925
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.0347	80.0347	0.0111	2.2900e-003	80.9925
NaturalGas Mitigated	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105
NaturalGas Unmitigated	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105

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	771420	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105
Total		**4.1600e-003**	**0.0378**	**0.0318**	**2.3000e-004**		**2.8700e-003**	**2.8700e-003**		**2.8700e-003**	**2.8700e-003**	**0.0000**	**41.1659**	**41.1659**	**7.9000e-004**	**7.5000e-004**	**41.4105**

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					
General Office Building	771420	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105

Total		**4.1600e-003**	**0.0378**	**0.0318**	**2.3000e-004**		**2.8700e-003**	**2.8700e-003**		**2.8700e-003**	**2.8700e-003**	**0.0000**	**41.1659**	**41.1659**	**7.9000e-004**	**7.5000e-004**	**41.4105**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	840221	80.0347	0.0111	2.2900e-003	80.9925
Total		**80.0347**	**0.0111**	**2.2900e-003**	**80.9925**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	840221	80.0347	0.0111	2.2900e-003	80.9925
Total		**80.0347**	**0.0111**	**2.2900e-003**	**80.9925**

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	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Unmitigated	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004

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					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2087**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

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	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2087**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9909	0.0110	6.6200e-003	11.2382
Unmitigated	8.9909	0.0110	6.6200e-003	11.2382

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
General Office Building	8.37481 / 5.13295	8.9909	0.0110	6.6200e-003	11.2382
Total		**8.9909**	**0.0110**	**6.6200e-003**	**11.2382**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	8.37481 / 5.13295	8.9909	0.0110	6.6200e-003	11.2382
Total		**8.9909**	**0.0110**	**6.6200e-003**	**11.2382**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.8951	0.5257	0.0000	22.0371

Unmitigated	8.8951	0.5257	0.0000	22.0371

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	43.82	8.8951	0.5257	0.0000	22.0371
Total		**8.8951**	**0.5257**	**0.0000**	**22.0371**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	43.82	8.8951	0.5257	0.0000	22.0371
Total		**8.8951**	**0.5257**	**0.0000**	**22.0371**

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

20-039 SRM San Jose Assisted Living - Existing AQ/GHG 2030

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	47.12	1000sqft	3.57	47,124.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2017 210 Rate

Land Use - Existing multi-tenant office building

Construction Phase - No construction

Off-road Equipment - No construction equipment

Vehicle Trips - 47.124 ksf/418 net trips: 8.87 weekday, 1.98 Saturday, 0.84 Sunday

Vehicle Emission Factors - 2030 EMFAC2017 Santa Clara County

Energy Use -

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0600e-003	5.5563e-003
tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblLandUse	LandUseSquareFeet	47,120.00	47,124.00
tblLandUse	LotAcreage	1.08	3.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleEF	HHD	0.27	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
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tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
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tblVehicleEF	HHD	0.04	8.6530e-003
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tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.08	2.0000e-006

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tblVehicleEF	LDA	0.06	0.06
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tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
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tblVehicleEF	LHD1	2.6030e-003	2.4750e-003
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tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.15	0.04
tblVehicleEF	LHD1	8.9000e-005	8.0000e-005
tblVehicleEF	LHD1	6.2670e-003	6.8120e-003
tblVehicleEF	LHD1	3.0000e-004	1.0000e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
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tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD2	2.5430e-003	2.5050e-003
tblVehicleEF	LHD2	5.3180e-003	5.3390e-003
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tblVehicleEF	LHD2	0.45	0.49

tblVehicleEF	LHD2	0.88	0.48
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tblVehicleEF	LHD2	0.22	0.38
tblVehicleEF	LHD2	0.26	0.12
tblVehicleEF	LHD2	1.0460e-003	1.5020e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.3120e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0600e-004
tblVehicleEF	LHD2	1.0000e-003	1.4370e-003
tblVehicleEF	LHD2	2.7080e-003	2.7110e-003
tblVehicleEF	LHD2	8.8860e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.8000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2400e-004
tblVehicleEF	LHD2	6.5670e-003	6.5570e-003
tblVehicleEF	LHD2	2.3300e-004	6.4000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.11	0.11

tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.52	17.61
tblVehicleEF	MCY	10.34	9.20
tblVehicleEF	MCY	171.38	209.76
tblVehicleEF	MCY	42.85	59.23
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1570e-003	2.1380e-003
tblVehicleEF	MCY	3.3210e-003	2.8620e-003
tblVehicleEF	MCY	2.0120e-003	1.9940e-003
tblVehicleEF	MCY	3.1070e-003	2.6760e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.12	2.13
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.11	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.5900e-004	5.8600e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.66	2.67
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.30	2.04
tblVehicleEF	MDV	5.1180e-003	1.7720e-003
tblVehicleEF	MDV	7.2260e-003	0.04

tblVehicleEF	MDV	0.68	0.55
tblVehicleEF	MDV	1.51	2.32
tblVehicleEF	MDV	358.67	322.27
tblVehicleEF	MDV	82.28	67.92
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.3880e-003	1.0340e-003
tblVehicleEF	MDV	2.0820e-003	1.3440e-003
tblVehicleEF	MDV	1.2780e-003	9.5400e-004
tblVehicleEF	MDV	1.9150e-003	1.2360e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	6.8870e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	3.5870e-003	2.9760e-003
tblVehicleEF	MDV	8.4800e-004	6.2800e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.9830e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MH	8.2310e-003	5.0270e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.45	0.31
tblVehicleEF	MH	3.72	1.64
tblVehicleEF	MH	1,184.19	1,350.27
tblVehicleEF	MH	56.79	15.54

tblVehicleEF	MH	0.84	1.06
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.8300e-004	2.1200e-004
tblVehicleEF	MH	3.2210e-003	3.2970e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.1200e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3200e-004	1.5400e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.24	0.08
tblVehicleEF	MHD	0.02	3.8320e-003
tblVehicleEF	MHD	2.7470e-003	1.0340e-003
tblVehicleEF	MHD	0.03	8.3830e-003
tblVehicleEF	MHD	0.37	0.41
tblVehicleEF	MHD	0.25	0.15
tblVehicleEF	MHD	3.74	0.87
tblVehicleEF	MHD	131.96	65.10
tblVehicleEF	MHD	1,167.79	993.45

tblVehicleEF	MHD	59.45	8.55
tblVehicleEF	MHD	0.34	0.34
tblVehicleEF	MHD	1.04	1.43
tblVehicleEF	MHD	9.99	1.69
tblVehicleEF	MHD	5.2000e-005	1.6200e-004
tblVehicleEF	MHD	3.0080e-003	7.0060e-003
tblVehicleEF	MHD	8.2100e-004	1.1200e-004
tblVehicleEF	MHD	5.0000e-005	1.5500e-004
tblVehicleEF	MHD	2.8710e-003	6.6960e-003
tblVehicleEF	MHD	7.5400e-004	1.0300e-004
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.23	0.04
tblVehicleEF	MHD	1.2710e-003	6.1800e-004
tblVehicleEF	MHD	0.01	9.4800e-003
tblVehicleEF	MHD	6.6000e-004	8.5000e-005
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	7.0980e-003
tblVehicleEF	OBUS	4.0840e-003	2.1970e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.30	0.26
tblVehicleEF	OBUS	4.08	1.58
tblVehicleEF	OBUS	110.55	97.36
tblVehicleEF	OBUS	1,272.30	1,210.85
tblVehicleEF	OBUS	64.94	13.46
tblVehicleEF	OBUS	0.24	0.43
tblVehicleEF	OBUS	0.85	1.45
tblVehicleEF	OBUS	2.74	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4200e-004
tblVehicleEF	OBUS	2.8340e-003	7.8820e-003
tblVehicleEF	OBUS	9.3800e-004	1.5600e-004
tblVehicleEF	OBUS	2.1000e-005	1.3600e-004
tblVehicleEF	OBUS	2.6900e-003	7.5260e-003
tblVehicleEF	OBUS	8.6200e-004	1.4400e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0660e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2100e-004	1.3300e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02

tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.28	0.08
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	7.6490e-003	4.4040e-003
tblVehicleEF	SBUS	0.06	6.3380e-003
tblVehicleEF	SBUS	8.87	2.93
tblVehicleEF	SBUS	0.48	0.37
tblVehicleEF	SBUS	7.57	0.86
tblVehicleEF	SBUS	1,023.58	337.48
tblVehicleEF	SBUS	1,008.60	970.50
tblVehicleEF	SBUS	61.81	5.06
tblVehicleEF	SBUS	4.35	2.71
tblVehicleEF	SBUS	1.72	3.09
tblVehicleEF	SBUS	10.76	1.18
tblVehicleEF	SBUS	2.1870e-003	2.0480e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4940e-003	0.02
tblVehicleEF	SBUS	1.1020e-003	6.8000e-005
tblVehicleEF	SBUS	2.0920e-003	1.9600e-003
tblVehicleEF	SBUS	2.5880e-003	2.6690e-003
tblVehicleEF	SBUS	8.1060e-003	0.02
tblVehicleEF	SBUS	1.0130e-003	6.2000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.05	0.32
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.01	3.2190e-003

tblVehicleEF	SBUS	9.7440e-003	9.2880e-003
tblVehicleEF	SBUS	7.4900e-004	5.0000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.53	0.46
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.43	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.1860e-003
tblVehicleEF	UBUS	3.04	14.11
tblVehicleEF	UBUS	7.59	0.14
tblVehicleEF	UBUS	1,937.16	1,668.67
tblVehicleEF	UBUS	126.43	1.40
tblVehicleEF	UBUS	4.75	0.71
tblVehicleEF	UBUS	13.02	0.02
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.10	5.1160e-003
tblVehicleEF	UBUS	1.3960e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.10	4.8930e-003
tblVehicleEF	UBUS	1.2840e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003

tblVehicleEF	UBUS	0.65	9.2610e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.4020e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.48	1.90
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.71	0.01
tblVehicleTrips	ST_TR	2.46	1.98
tblVehicleTrips	SU_TR	1.05	0.84
tblVehicleTrips	WD_TR	11.03	8.87
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

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	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.00E-04
Energy	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	121.2006	121.2006	0.0118	3.0400e-003	122.403
Mobile	0.0826	0.1461	0.7183	2.3500e-003	0.2821	1.7000e-003	0.2837	0.0755	1.5900e-003	0.0771	0.0000	227.0561	227.0561	8.4600e-003	0.0000	227.2676
Waste						0.0000	0.0000		0.0000	0.0000	8.8951	0.0000	8.8951	0.5257	0.0000	22.0371

Water						0.0000	0.0000		0.0000	0.0000	2.9630	6.0278	8.9909	0.0110	6.6200e-003	11.2382
Total	**0.2954**	**0.1839**	**0.7505**	**2.5800e-003**	**0.2821**	**4.5700e-003**	**0.2866**	**0.0755**	**4.4600e-003**	**0.0799**	**11.8581**	**354.2854**	**366.1435**	**0.5570**	**9.6600e-003**	**382.9468**

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	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	121.2006	121.2006	0.0118	3.0400e-003	122.4030
Mobile	0.0826	0.1461	0.7183	2.3500e-003	0.2821	1.7000e-003	0.2837	0.0755	1.5900e-003	0.0771	0.0000	227.0561	227.0561	8.4600e-003	0.0000	227.2676
Waste						0.0000	0.0000		0.0000	0.0000	8.8951	0.0000	8.8951	0.5257	0.0000	22.0371
Water						0.0000	0.0000		0.0000	0.0000	2.9630	6.0278	8.9909	0.0110	6.6200e-003	11.2382
Total	**0.2954**	**0.1839**	**0.7505**	**2.5800e-003**	**0.2821**	**4.5700e-003**	**0.2866**	**0.0755**	**4.4600e-003**	**0.0799**	**11.8581**	**354.2854**	**366.1435**	**0.5570**	**9.6600e-003**	**382.9468**

	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
Category	tons/yr										MT/yr					
Mitigated	0.0826	0.1461	0.7183	2.3500e-003	0.2821	1.7000e-003	0.2837	0.0755	1.5900e-003	0.0771	0.0000	227.0561	227.0561	8.4600e-003	0.0000	227.2676
Unmitigated	0.0826	0.1461	0.7183	2.3500e-003	0.2821	1.7000e-003	0.2837	0.0755	1.5900e-003	0.0771	0.0000	227.0561	227.0561	8.4600e-003	0.0000	227.2676

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	417.95	93.30	39.58	758,798	758,798
Total	417.95	93.30	39.58	758,798	758,798

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures 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	80.0347	80.0347	0.0111	2.2900e-003	80.9925
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.0347	80.0347	0.0111	2.2900e-003	80.9925
NaturalGas Mitigated	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105
NaturalGas Unmitigated	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105

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	771420	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105
Total		**4.1600e-003**	**0.0378**	**0.0318**	**2.3000e-004**		**2.8700e-003**	**2.8700e-003**		**2.8700e-003**	**2.8700e-003**	**0.0000**	**41.1659**	**41.1659**	**7.9000e-004**	**7.5000e-004**	**41.4105**

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					
General Office Building	771420	4.1600e-003	0.0378	0.0318	2.3000e-004		2.8700e-003	2.8700e-003		2.8700e-003	2.8700e-003	0.0000	41.1659	41.1659	7.9000e-004	7.5000e-004	41.4105

Total		**4.1600e-003**	**0.0378**	**0.0318**	**2.3000e-004**		**2.8700e-003**	**2.8700e-003**		**2.8700e-003**	**2.8700e-003**	**0.0000**	**41.1659**	**41.1659**	**7.9000e-004**	**7.5000e-004**	**41.4105**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	840221	80.0347	0.0111	2.2900e-003	80.9925
Total		**80.0347**	**0.0111**	**2.2900e-003**	**80.9925**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	840221	80.0347	0.0111	2.2900e-003	80.9925
Total		**80.0347**	**0.0111**	**2.2900e-003**	**80.9925**

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	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Unmitigated	0.2087	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004

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					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2087**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

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	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2087**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9909	0.0110	6.6200e-003	11.2382
Unmitigated	8.9909	0.0110	6.6200e-003	11.2382

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
General Office Building	8.37481 / 5.13295	8.9909	0.0110	6.6200e-003	11.2382
Total		**8.9909**	**0.0110**	**6.6200e-003**	**11.2382**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	8.37481 / 5.13295	8.9909	0.0110	6.6200e-003	11.2382
Total		**8.9909**	**0.0110**	**6.6200e-003**	**11.2382**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.8951	0.5257	0.0000	22.0371

Unmitigated	8.8951	0.5257	0.0000	22.0371

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	43.82	8.8951	0.5257	0.0000	22.0371
Total		**8.8951**	**0.5257**	**0.0000**	**22.0371**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	43.82	8.8951	0.5257	0.0000	22.0371
Total		**8.8951**	**0.5257**	**0.0000**	**22.0371**

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

Attachment 3: EMFAC2017 Emissions and CARB SAFE Off-Model Adjustment Factors

Summary of Construction Traffic Emissions (EMFAC2017)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Tons						*Metric Tons*
Criteria Pollutants											
2021	0.0245	0.2416	0.2295	0.0012	0.0683	0.0167	0.0850	0.0103	0.0085	0.0187	117.8069
2022	0.0486	0.5000	0.5022	0.0028	0.1640	0.0367	0.2007	0.0247	0.0170	0.0417	275.3105
2023	0.0100	0.1037	0.1204	0.0007	0.0427	0.0091	0.0518	0.0064	0.0040	0.0104	68.7370
Toxic Air Contaminants (1 Mile Trip Length)											
2021	0.0157	0.0490	0.0760	0.0001	0.0062	0.0016	0.0078	0.0009	0.0008	0.0017	14.0928
2022	0.0348	0.1114	0.1776	0.0003	0.0149	0.0034	0.0183	0.0022	0.0016	0.0039	33.2428
2023	0.0084	0.0264	0.0454	0.0001	0.0039	0.0008	0.0047	0.0006	0.0004	0.0010	8.3223

Project SJ Senior Living **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	10	-	150	-	4,768	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1,620	-	95,360
Site Preparation	5	-	100	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1,080	-	-
Grading	8	-	160	-	764	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1,728	-	15,280
Trenching	8	-	480	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	5,184	-	-
Building Construction	164	30	52,644	9,630	460	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	568,555	70,299	3,358
Architectural Coating	33	-	6,369	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	68,785	-	-
Paving	13	-	195	-	137	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	2,106	-	1,000

Number of Days Per Year					
2021	8/2/2021	12/31/21	152	**110**	
2022	1/1/22	12/31/22	365	**260**	
2023	1/1/23	4/5/2023	95	**68**	
			612	**438**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	8/2/2021	8/20/2021	5	15
Site Preparation	8/23/2021	9/17/2021	5	20
Grading	9/20/2021	10/15/2021	5	20
Trenching	10/18/2021	1/7/2022	5	60
Building Construction	1/10/2022	4/3/2023	5	321
Architectural Coating	7/9/2022	4/5/2023	5	193
Paving	3/15/2023	4/4/2023	5	15

Project SJ Senior Living

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	18,656.18	521,470.52	112,333.00	1,700.35	34,384.43	18,100.48	52,484.91	5,173.76	10,738.52	15,912.28	185,154,109
Vendor	14,563.09	309,940.32	89,101.94	979.36	21,019.40	12,708.41	33,727.81	3,162.75	7,597.64	10,760.39	105,414,224
Worker	56,392.27	51,061.97	636,776.94	1,735.14	194,068.46	30,153.22	224,221.68	29,201.14	12,541.01	41,742.15	184,182,204
Total (g)	89,611.54	882,472.80	838,211.88	4,414.85	249,472.29	60,962.12	310,434.41	37,537.65	30,877.16	68,414.82	474,750,537
Total (lbs)	197.56	1,945.52	1,847.94	9.73	549.99	134.40	684.39	82.76	68.07	150.83	1,046,646
Total (tons)	0.10	0.97	0.92	0.00	0.27	0.07	0.34	0.04	0.03	0.08	523
Total (MT)											475

YEAR											
						Tons					
	2021	0.0245	0.2416	0.2295	0.0012	0.0683	0.0167	0.0850	0.0103	0.0085	0.0187	117.9119

Project SJ Senior Living Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PMBW	PM10_PMTW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
																												19	22	23	8	9	10
Hauling	HHDT	100.0	1	4.16173E-06	0.000184922	0.434467644	2.29522E-06	0.13900353	0.00114182	2.55505E-06	5.9660776	4.11760691	1.857963365	5.630239	0.67643733	0.0059162	0.01013772	0.014245597	5.51426E-07		0.06085	0.035473	0.008566	0.060619	1.05485E-06		0.026078	0.008868	0.0081958	0.0579964	9.699E-07	1088.7861	1552.0308	0.0557231
	MHD	0.0	0	0.000487808	0.021812603	0.021034603	0.000236584	0.19015319	0.12779685	0.052960704	0.6687192	2.890356527	1.169875105	0.370014	0.75814415	1.203259	0.00073142	0.011054821	9.01407E-05	0.299	0.13034	0.012	0.002134	0.074904	0.000122619	0.04499	0.05586	0.003	0.0020414	0.0716576	0.0001127	77.128984	1160.4052	9.1089764
Vendor	HHDT	61.9	0.61874	2.57503E-06	0.000114418	0.268822304	1.42015E-06	0.08600698	0.00070649	1.58091E-06	3.691448	2.547726142	1.14959537	3.483651	0.41853851	0.0036606	0.00627261	0.008814314	3.41189E-07		0.03765	0.021949	0.0053	0.037507	6.5268E-07		0.016136	0.005487	0.0050711	0.0358847	6.001E-07	673.67502	960.30282	0.0344781
	MHD	38.1	0.38126	0.000185982	0.008316283	0.008019663	9.02002E-05	0.0724979	0.04872389	0.020191823	0.2549562	1.101978703	0.446027139	0.141072	0.2890504	0.4587551	0.00027886	0.004214766	3.43671E-05		0.049694	0.004575	0.000814	0.028558	4.67497E-05		0.021297	0.001144	0.0007783	0.0273202	4.298E-05	29.406233	442.41664	3.4728927
			1	0.000188557	0.008430702	0.276841966	9.16203E-05	0.15850488	0.04943038	0.020193404	3.9464042	3.649704846	1.595622508	3.624723	0.70758891	0.4624157	0.00655147	0.01302908	3.47083E-05	0.299	0.087344	0.026524	0.006114	0.066065	4.74024E-05	0.04499	0.037433	0.006631	0.0058494	0.0632049	4.358E-05	703.08125	1402.7195	3.5073708
Worker	LDA	71.5	0.71531	0.032356992	0.074537563	0	0.027925009	0.00741584	0.1578651	0.184530222	0	0.031184457	0.14495028	0	0.47490777	1.6391858	0	6.40185E-05	0		0.026288	0.005723	0	0.001067	0.00135696		0.011266	0.001431	0	0.0009833	0.0012477	0	184.45167	39.076478
	LDT1	6.4	0.0637	0.006312515	0.011963767	0	0.004904484	0.00157907	0.04309569	0.024338938	0	0.006713175	0.017206334	0	0.07593017	0.1604786	0	0.000164506	0		0.002341	0.00051	0	0.000131	0.000163964		0.001003	0.000127	0	0.000121	0.0001508	0	19.529136	4.1945977
	LDT2	22.1	0.22098	0.01437858	0.029016459	0	0.013334911	0.00366633	0.09718754	0.079849501	0	0.019175669	0.071096765	0	0.20286241	0.6560146	0	0.002442948	1.99197E-05		0.008121	0.001768	0	0.000329	0.000410964		0.003481	0.000442	0	0.0003031	0.0003779	0	74.292964	16.069943
			1	0.053048088	0.115517789	0	0.046164405	0.01266123	0.29814833	0.28871866	0	0.057073301	0.233253379	0	0.75370035	2.4556789	0	0.002671473	1.99197E-05	0.299	0.03675	0.008	0	0.001528	0.001931888	0.04499	0.01575	0.002	0	0.0014074	0.0017764	0	278.27377	59.341019

Project SJ Senior Living						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2021**	**1.0002**	**1.0001**	**1.0002**	**1.0009**	**1.0005**	**1.0023**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Project SJ Senior Living	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	5.16284452	5.88865E-05	484.6824242	0.0004835	103.2981931	0.001178
	HHDT	DSL	8105.74856	0.092452681	988266.7063	0.9858436	86260.08333	0.983867
	HHDT	NG	336.20087	0.003834645	13706.5448	0.0136729	1311.183392	0.014955
			8447.11227		1002457.933		87674.56491	
	LDA	GAS	715693.333	0.203383812	26189161.18	0.9588129	3369391.829	0.957505
	LDA	DSL	6670.99857	0.001895746	255156.3961	0.0093415	31695.33585	0.009007
	LDA	ELEC	24022.2737	0.006826585	869835.6575	0.0318456	117842.5205	0.033488
			746386.605		27314153.24		3518929.685	
	LDT1	GAS	71628.1516	0.214597814	2413667.723	0.9922854	331256.0399	0.992443
	LDT1	DSL	39.8937445	0.000119522	725.5581592	0.0002983	131.2284046	0.000393
	LDT1	ELEC	483.88067	0.001449706	18039.75638	0.0074163	2391.302869	0.007164
			72151.926		2432433.037		333778.5712	
	LDT2	GAS	246759.88	0.211129747	8311704.136	0.985	1150424.758	0.984313
	LDT2	DSL	1518.21831	0.001299	59025.65402	0.006995	7458.416256	0.006381
	LDT2	ELEC	2166.54623	0.001853714	67548.48679	0.008005	10876.24084	0.009306
			250444.645		8438278.277		1168759.415	
	LHDT1	GAS	16540.6072	0.043541751	571642.7233	0.5826905	246430.4014	0.648707
	LHDT1	DSL	10609.0763	0.027927497	409397.2662	0.4173095	133448.8335	0.351293
			27149.6835	0.071469249	981039.9895		379879.2349	
	LHDT2	GAS	2219.57501	0.025784318	77018.28883	0.324042	33068.36042	0.384148
	LHDT2	DSL	4214.57115	0.048959752	160661.6364	0.675958	53014.00308	0.615852
			6434.14615	0.074744069	237679.9253		86082.3635	
	MCY	GAS	32119.629	1	243796.974	1	68862.74135	1
	MDV	GAS	149542.914	0.210426485	4865312.486	0.9699211	690430.3337	0.971526
	MDV	DSL	3426.38868	0.004821378	128241.968	0.0255656	16726.02912	0.023536
	MDV	ELEC	687.544597	0.000967465	22639.77893	0.0045133	3509.471008	0.004938
			153656.847		5016194.233		710665.8338	
	MH	GAS	2931.22046	7.483637918	26378.99882	0.7351199	293.2392951	0.748663
	MH	DSL	984.446018	2.513368627	9504.940662	0.2648801	98.44460184	0.251337
			3915.66648		35883.93948		391.683897	
	MHDT	GAS	1410.13442	0.011343156	72248.38534	0.1169629	28213.9694	0.226954
	MHDT	DSL	9487.14764	0.076314852	545455.1439	0.8830371	96101.90575	0.773046
			10897.2821		617703.5293		124315.8751	
	OBUS	GAS	502.212708	0.029373467	24696.47411	0.3120598	10048.27186	0.587704
	OBUS	DSL	767.972857	0.044917273	54443.72504	0.6879402	7049.223278	0.412296
			1270.18556		79140.19916		17097.49514	
	SBUS	GAS	235.345624	0.018628358	11037.57349	0.2564261	941.3824964	0.074513
	SBUS	DSL	1013.21374	0.080199106	32006.30897	0.7435739	11692.34604	0.925487
			1248.55936		43043.88246		12633.72854	
	UBUS	GAS	8.41556894	0.003929273	1059.36752	0.0177031	33.66227577	0.015717
	UBUS	DSL	423.065115	0.197531312	46463.11854	0.7764467	1692.260461	0.790125
	UBUS	NG	103.95989	0.048539415	12318.21749	0.2058501	415.8395591	0.194158
			535.440574		59840.70356		2141.762296	

Project SJ Senior Living
Region Type: County
Region: Santa Clara
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLE	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2021	HHDT	Aggregate	Aggregate	Gasoline	5.162845	484.6824	103.2982	4.062598	0	0.407731	0.001311	0	0.000823	0.005	0.02646	0.001426	0	0.000895	0.02	0.06174	2025.269	0	47.29512	0.112325	0	0.000414	0.149526	0	0.012575	0.585782	0	0.002169	0.156953	0.96912	0.038977	0.070674	0.854771	0	0.002374	0.156953	0.96912	0.038977	0.070674	32.05552	0	5.02137	0.020042	0	0.000468
Santa Clara	2021	HHDT	Aggregate	Aggregate	Diesel	8105.749	988266.7	86260.08	4.147844	63.6365	1.887942	0.058758	0.087222	0	0.008868	0.026073	0.061415	0.091165	0	0.035473	0.060837	1528.481	11606.57	0	0.006422	0.218177	0	0.240256	1.824391	0	0.138263	4.697294	0	0	0	0	0.157402	5.347512	0	0	0	0	0	0.5229	60.00634	0	0.01444	0.109653	0
Santa Clara	2021	HHDT	Aggregate	Aggregate	Natural Ga	336.2009	13706.54	1311.183	1.939434	21.5699	0	0.005088	0.034407	0	0	0.009	0.02646	0.005318	0.035962	0	0.036	0.06174	3233.282	4101.533	0	3.57235	1.261083	0	0.659126	0.836124	0	0.176593	0.0496	0	0	0	3.788896	1.323011	0	0	0	0	0	10.63714	21.51231	0	0	0	0
Santa Clara	2021	LDA	Aggregate	Aggregate	Gasoline	715693.3	26189161	3369392	0.044609	0	0.21159	0.001358	0	0.001822	0.002	0.01575	0.001477	0	0.001981	0.008	0.03675	266.3197	0	56.92202	0.002711	0	0.058853	0.004863	0	0.027764	0.010662	0	0.269366	0.108645	0.230465	0.191774	0.221801	0.015551	0	0.294921	0.108645	0.230465	0.191774	0.221801	0.690036	0	2.392069	0.002635	0	0.000563
Santa Clara	2021	LDA	Aggregate	Aggregate	Diesel	6670.999	255156.4	31695.34	0.087271	0	0	0.007648	0	0	0.002	0.01575	0.007994	0	0	0.008	0.03675	205.4073	0	0	0.000708	0	0	0.032287	0	0	0.015244	0	0	0	0	0	0.017354	0	0	0	0	0	0	0.210705	0	0	0.001942	0	0
Santa Clara	2021	LDA	Aggregate	Aggregate	Electricity	24022.27	869835.7	117842.5	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LDT1	Aggregate	Aggregate	Gasoline	71628.15	2413668	331256	0.105802	0	0.272111	0.001862	0	0.002385	0.002	0.01575	0.002025	0	0.002594	0.008	0.03675	308.1227	0	66.19689	0.005661	0	0.076866	0.008066	0	0.03002	0.024911	0	0.384911	0.189186	0.681609	0.358705	0.461608	0.036311	0	0.421425	0.189186	0.681609	0.358705	0.461608	1.200263	0	2.537143	0.003049	0	0.000655
Santa Clara	2021	LDT1	Aggregate	Aggregate	Diesel	39.89374	725.5582	131.2284	1.268412	0	0	0.168474	0	0	0.002	0.01575	0.176091	0	0	0.008	0.03675	413.9966	0	0	0.010139	0	0	0.065074	0	0	0.218297	0	0	0	0	0	0.248517	0	0	0	0	0	0	1.237222	0	0	0.003914	0	0
Santa Clara	2021	LDT1	Aggregate	Aggregate	Electricity	483.8807	18039.76	2391.303	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LDT2	Aggregate	Aggregate	Gasoline	246759.9	8311704	1150425	0.087782	0	0.326789	0.001356	0	0.001737	0.002	0.01575	0.001475	0	0.001889	0.008	0.03675	338.518	0	73.70907	0.004072	0	0.077467	0.007118	0	0.035187	0.01674	0	0.36702	0.133338	0.446757	0.285742	0.307995	0.024414	0	0.40184	0.133338	0.446757	0.285742	0.307995	0.930639	0	3.014399	0.00335	0	0.000729
Santa Clara	2021	LDT2	Aggregate	Aggregate	Diesel	1518.218	59025.65	7458.416	0.041668	0	0	0.004904	0	0	0.002	0.01575	0.005126	0	0	0.008	0.03675	282.8504	0	0	0.000657	0	0	0.04446	0	0	0.01415	0	0	0	0	0	0.016109	0	0	0	0	0	0	0.12212	0	0	0.002674	0	0
Santa Clara	2021	LDT2	Aggregate	Aggregate	Electricity	2166.546	67548.49	10876.24	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LHDT1	Aggregate	Aggregate	Gasoline	16540.61	571642.7	246430.4	0.262338	0.03949	0.549198	0.002191	0	0.000401	0.002	0.03276	0.002383	0	0.000436	0.008	0.07644	1017.255	122.0379	19.14342	0.012124	0.123606	0.02716	0.015765	0.003154	0.042297	0.059375	0.45228	0.137987	0.130258	0.89758	0.02599	0.052227	0.08664	0.659966	0.151079	0.130258	0.89758	0.02599	0.052227	1.086844	3.748723	1.811769	0.010067	0.001208	0.000189
Santa Clara	2021	LHDT1	Aggregate	Aggregate	Diesel	10609.08	409397.3	133448.8	1.862203	2.152154	0	0.023297	0.02704	0	0.003	0.03276	0.02435	0.028263	0	0.012	0.07644	552.5074	134.745	0	0.007585	0.005098	0	0.086846	0.02118	0	0.163311	0.10976	0	0	0	0	0.185919	0.124954	0	0	0	0	0	0.686231	0.909745	0	0.005223	0.001274	0
Santa Clara	2021	LHDT2	Aggregate	Aggregate	Gasoline	2219.575	77018.29	33068.36	0.272207	0.039035	0.535592	0.002122	0	0.00036	0.002	0.03822	0.002307	0	0.000392	0.008	0.08918	1160.22	140.2323	21.7453	0.010038	0.122897	0.026292	0.016913	0.003077	0.040901	0.045762	0.447168	0.133103	0.127611	0.884759	0.023996	0.048928	0.066776	0.652507	0.145731	0.127611	0.884759	0.023996	0.048928	0.835401	3.750559	1.839341	0.011481	0.001388	0.000215
Santa Clara	2021	LHDT2	Aggregate	Aggregate	Diesel	4214.571	160661.6	53014	1.542154	2.158821	0	0.022944	0.027219	0	0.003	0.03822	0.023981	0.02845	0	0.012	0.08918	621.5562	215.9968	0	0.007204	0.005098	0	0.0977	0.033952	0	0.155094	0.10976	0	0	0	0	0.176564	0.124954	0	0	0	0	0	0.650931	0.909745	0	0.005876	0.002042	0
Santa Clara	2021	MCY	Aggregate	Aggregate	Gasoline	32119.63	239436.8	64239.26	1.15497	0	0.270443	0.001772	0	0.00303	0.001	0.00504	0.001893	0	0.003213	0.004	0.01176	210.3906	0	61.75755	0.33122	0	0.25818	0.066438	0	0.015338	2.253066	0	1.967635	0.716612	2.132348	1.002545	1.822873	2.774349	0	2.14098	0.716612	2.132348	1.002545	1.822873	19.56337	0	8.976601	0.002082	0	0.000611
Santa Clara	2021	MDV	Aggregate	Aggregate	Gasoline	149542.9	4865312	690430.3	0.11839	0	0.410054	0.001476	0	0.002019	0.002	0.01575	0.001604	0	0.002194	0.008	0.03675	409.4409	0	89.81723	0.005494	0	0.095775	0.008922	0	0.03884	0.024634	0	0.48393	0.15482	0.49034	0.340146	0.361645	0.034949	0	0.529797	0.15482	0.49034	0.340146	0.361645	1.127252	0	3.59329	0.004052	0	0.000889
Santa Clara	2021	MDV	Aggregate	Aggregate	Diesel	3426.389	128242	16726.03	0.044109	0	0	0.004602	0	0	0.002	0.01575	0.00481	0	0	0.008	0.03675	370.3019	0	0	0.000514	0	0	0.058206	0	0	0.011068	0	0	0	0	0	0.0126	0	0	0	0	0	0	0.188966	0	0	0.003501	0	0
Santa Clara	2021	MDV	Aggregate	Aggregate	Electricity	687.5446	22639.78	3509.471	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	MH	Aggregate	Aggregate	Gasoline	2931.22	26379	293.2393	0.474084	0	0.332292	0.001724	0	0.000381	0.003	0.05586	0.001875	0	0.000414	0.012	0.13034	1782.907	0	26.40751	0.017557	0	0.033119	0.028008	0	0.03399	0.078746	0	0.143103	0.096257	2.347589	0.039223	0.115979	0.114906	0	0.15668	0.096257	2.347589	0.039223	0.115979	2.065959	0	3.165436	0.017643	0	0.000261
Santa Clara	2021	MH	Aggregate	Aggregate	Diesel	984.446	9504.941	98.4446	4.382014	0	0	0.092722	0	0	0.004	0.05586	0.096914	0	0	0.016	0.13034	1031.304	0	0	0.005198	0	0	0.162107	0	0	0.111901	0	0	0	0	0	0.127391	0	0	0	0	0	0	0.400207	0	0	0.00975	0	0
Santa Clara	2021	MHDT	Aggregate	Aggregate	Gasoline	1410.134	72248.39	28213.97	0.591018	0.088168	0.389628	0.001358	0	0.000497	0.003	0.05586	0.001477	0	0.00054	0.012	0.13034	1752.404	539.4334	40.1358	0.018696	0.257865	0.042095	0.027833	0.0072	0.028931	0.092815	1.007984	0.233354	0.09611	0.563096	0.020857	0.043005	0.135436	1.470848	0.255494	0.09611	0.563096	0.020857	0.043005	2.155492	15.06152	5.301778	0.017341	0.005338	0.000397
Santa Clara	2021	MHDT	Aggregate	Aggregate	Diesel	9487.148	545455.1	96101.91	3.194916	8.74953	1.398943	0.080969	0.02675	0	0.003	0.05586	0.08463	0.02796	0	0.012	0.13034	1081.992	930.4887	0	0.009431	0.005843	0	0.170074	0.14626	0	0.203046	0.125806	0	0	0	0	0.231153	0.143221	0	0	0	0	0	0.573058	2.609835	0	0.010222	0.008791	0
Santa Clara	2021	OBUS	Aggregate	Aggregate	Gasoline	502.2127	24696.47	10048.27	0.501682	0.065104	0.329488	0.000916	0	0.000212	0.003	0.05586	0.000996	0	0.00023	0.012	0.13034	1793.018	381.4064	26.74037	0.014791	0.200187	0.030949	0.025044	0.005583	0.026445	0.070359	0.746923	0.159737	0.026848	0.294072	0.016083	0.036997	0.102667	1.089908	0.174892	0.026848	0.294072	0.016083	0.036997	1.576822	5.778528	3.351004	0.017743	0.003774	0.000265
Santa Clara	2021	OBUS	Aggregate	Aggregate	Diesel	767.9729	54443.73	7049.223	2.779706	13.63199	1.84	0.044765	0.045778	0	0.003	0.05586	0.046789	0.047848	0	0.012	0.13034	1202.163	1945.083	0	0.005321	0.035079	0	0.188963	0.30574	0	0.114561	0.755235	0	0	0	0	0.130419	0.859777	0	0	0	0	0	0.397353	8.822131	0	0.011357	0.018376	0
Santa Clara	2021	SBUS	Aggregate	Aggregate	Gasoline	235.3456	11037.57	941.3825	0.448701	0.923977	0.560273	0.001205	0	0.000494	0.002	0.3192	0.001311	0	0.000537	0.008	0.7448	872.735	2601.946	49.24562	0.012804	2.443216	0.058897	0.025163	0.088108	0.05292	0.063019	10.60409	0.336056	0.060254	0.423958	0.009983	0.025	0.091957	15.47346	0.367939	0.060254	0.423958	0.009983	0.025	1.371308	82.01386	8.8054	0.008636	0.025748	0.000487
Santa Clara	2021	SBUS	Aggregate	Aggregate	Diesel	1013.214	32006.31	11692.35	6.970742	45.79682	0.74176	0.043352	0.053733	0	0.003	0.3192	0.045313	0.056163	0	0.012	0.7448	1153.149	3727.733	0	0.004763	0.013307	0	0.181259	0.585948	0	0.102551	0.286497	0	0	0	0	0.116746	0.326154	0	0	0	0	0	0.279558	5.707206	0	0.010894	0.035218	0
Santa Clara	2021	UBUS	Aggregate	Aggregate	Gasoline	8.415569	1059.368	33.66228	0.456042	0	1.173674	0.000327	0	9.66E-05	0.003	0.05586	0.000355	0	0.000105	0.012	0.13034	2351.957	0	104.4673	0.006811	0	0.169572	0.0345	0	0.088962	0.022728	0	0.727258	0.171351	1.189018	0.028073	0.044636	0.033164	0	0.796256	0.171351	1.189018	0.028073	0.044636	0.499495	0	8.852622	0.023275	0	0.001034
Santa Clara	2021	UBUS	Aggregate	Aggregate	Diesel	423.0651	46463.12	1692.26	0.803452	0	0	0.005651	0	0	0.008415	0.029326	0.005907	0	0	0.03366	0.068427	1481.161	0	0	0.077358	0	0	0.232818	0	0	0.001105	0	0	0	0	0	0.078949	0	0	0	0	0	0	0.131304	0	0	0.014002	0	0
Santa Clara	2021	UBUS	Aggregate	Aggregate	Natural Ga	103.9599	12318.22	415.8396	0.489341	0	0	0.003183	0	0	0.008475	0.029034	0.003327	0	0	0.033899	0.067745	2016.304	0	0	6.413624	0	0	0.411037	0	0	0.091638	0	0	0	0	0	6.545574	0	0	0	0	0	0	49.80412	0	0	0	0	0

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	12,444.61	452,555.93	96,820.69	1,656.14	34,384.43	15,133.82	49,518.25	5,173.76	7,896.46	13,070.23	180,499,810
Vendor	9,510.52	262,828.36	76,967.11	956.38	21,019.40	10,536.44	31,555.84	3,162.75	5,520.77	8,683.52	102,997,156
Worker	51,975.42	45,116.84	590,158.12	1,682.77	194,068.46	30,100.89	224,169.35	29,201.14	12,492.74	41,693.88	179,277,285
Total (g)	73,930.56	760,501.14	763,945.91	4,295.30	249,472.29	55,771.15	305,243.44	37,537.65	25,909.97	63,447.62	462,774,251
Total (lbs)	162.99	1,676.62	1,684.21	9.47	549.99	122.95	672.95	82.76	57.12	139.88	1,020,243
Total (tons)	0.08	0.84	0.84	0.00	0.27	0.06	0.34	0.04	0.03	0.07	510
Total (MT)											463

YEAR											
						Tons					
	2022	0.0486	0.5000	0.5022	0.0028	0.1640	0.0367	0.2007	0.0247	0.0170	0.0417	276.0010

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PMBW	PM10_PMTW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
Category																													19	22	23	8	9	10
Hauling	HHDT	100.0	1	3.39912E-06	0.000152206	0.429371666	1.88626E-06	0.08527405	0.00092348	2.55882E-06	5.9173485	3.510881156	2.046637573	5.939213	0.52508074	0.0058678	0.01029663	0.013852696	5.15679E-07		0.060884	0.035493	0.003362	0.035044	9.00263E-07		0.026093	0.008873	0.0032166	0.033528	8.278E-07	1105.7031	1510.6566	0.0521109
	MHD	0.0	0	0.00044818	0.02058451	0.019512587	0.000221882	0.09170637	0.11899793	0.05147655	0.5645581	2.060753772	1.380182496	0.373927	0.48464994	1.1601125	0.00071898	0.010780743	9.08684E-05	0.299	0.13034	0.012	0.001235	0.03679	0.000119776	0.04499	0.05586	0.003	0.0011811	0.0351917	0.0001101	75.80618	1131.3081	9.182511
Vendor	HHDT	62.1	0.62055	2.10934E-06	9.44524E-05	0.266448661	1.17053E-06	0.05291722	0.00057307	1.58789E-06	3.6720392	2.178694258	1.270050831	3.685607	0.32584139	0.0036413	0.00638963	0.008596358	3.20007E-07		0.037782	0.022025	0.002086	0.021747	5.58663E-07		0.016192	0.005506	0.0019961	0.0208059	5.137E-07	686.14938	937.44524	0.0323377
	MHD	37.9	0.37945	0.00017006	0.007810693	0.007403957	8.41922E-05	0.03479754	0.04515319	0.019532528	0.2142188	0.781943066	0.523703582	0.141885	0.18389808	0.4401991	0.00027281	0.004090701	3.44796E-05		0.049457	0.004553	0.000468	0.01396	4.54485E-05		0.021196	0.001138	0.0004482	0.0133533	4.179E-05	28.764289	429.2694	3.4842594
			1	0.000172169	0.007905145	0.273852618	8.53627E-05	0.08771476	0.04572626	0.019534116	3.8862581	2.960637324	1.793754413	3.827492	0.50973947	0.4438404	0.00666244	0.012687058	3.47996E-05	0.299	0.087239	0.026579	0.002555	0.035706	4.60072E-05	0.04499	0.037388	0.006645	0.0024442	0.0341593	4.23E-05	714.91367	1366.7146	3.5165971
Worker	LDA	71.7	0.71721	0.029679934	0.069287896	0	0.025948717	0.00627875	0.15142537	0.167118784	0	0.027062697	0.135235315	0	0.43554167	1.5959914	0	6.55844E-05	0		0.026358	0.005738	0	0.001019	0.001303368		0.011296	0.001434	0	0.0009386	0.0011984	0	180.32718	38.214126
	LDT1	6.4	0.06398	0.005759375	0.011009833	0	0.004555719	0.00134912	0.03986886	0.02186246	0	0.005796546	0.015933435	0	0.06778579	0.155553	0	0.000166314	0		0.002351	0.000512	0	0.000122	0.000153462		0.001008	0.000128	0	0.0001121	0.0001411	0	19.165858	4.1143018
	LDT2	21.9	0.21881	0.013816282	0.027554601	0	0.012979481	0.00322961	0.09379893	0.072917494	0	0.016689277	0.064428442	0	0.18550531	0.628991	0	0.002358898	1.98826E-05		0.008041	0.00175	0	0.000314	0.000393391		0.003446	0.000438	0	0.0002892	0.0003617	0	71.368997	15.443923
			1	0.049255591	0.107852329	0	0.043483917	0.01085748	0.28509316	0.261898738	0	0.04954852	0.215597193	0	0.68883278	2.3805355	0	0.002590796	1.98826E-05	0.299	0.03675	0.008	0	0.001455	0.001850221	0.04499	0.01575	0.002	0	0.00134	0.0017013	0	270.86204	57.772351

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2022**	**1.0004**	**1.0003**	**1.0004**	**1.0018**	**1.0014**	**1.0065**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	4.973172	5.55717E-05	516.9337951	0.000504	99.50322533	0.001112
HHDT	DSL	8277.46332	0.092494875	1011013.237	0.98563	88031.26312	0.983688
HHDT	NG	348.790157	0.003897487	14223.1379	0.013866	1360.281611	0.0152
		8631.22665		1025753.309		89491.04796	
LDA	GAS	733557.695	0.202806099	26455303.53	0.956207	3456648.544	0.955657
LDA	DSL	7146.66761	0.001975833	268335.1014	0.0096988	33963.02434	0.00939
LDA	ELEC	25894.6084	0.007159061	943282.8126	0.0340942	126428.0465	0.034953
		766598.971		27666921.44		3617039.615	
LDT1	GAS	73556.9159	0.213850423	2443329.481	0.9899812	340743.7941	0.990637
LDT1	DSL	36.8387989	0.000107101	667.9121032	0.0002706	121.0603114	0.000352
LDT1	ELEC	624.877132	0.001816692	24059.06824	0.0097482	3099.468736	0.009011
		74218.6318		2468056.461		343964.3232	
LDT2	GAS	250455.374	0.210629786	8295824.493	0.9828491	1167439.23	0.981802
LDT2	DSL	1663.51269	0.001398993	62652.21286	0.0074227	8136.946529	0.006843
LDT2	ELEC	2695.96042	0.002267268	82111.52239	0.0097282	13502.43635	0.011355
		254814.847		8440588.228		1189078.613	
LHDT1	GAS	16536.9032	0.042835608	566343.7683	0.5722898	246375.2176	0.638187
LHDT1	DSL	11104.4362	0.028763867	423266.3697	0.4277102	139679.8374	0.361813
		27641.3393	0.071599475	989610.138		386055.055	
LHDT2	GAS	2253.29966	0.025202537	77523.95545	0.3179251	33570.8075	0.37548
LHDT2	DSL	4438.98491	0.049648825	166319.5005	0.6820749	55836.84587	0.62452
		6692.28456	0.074851361	243843.4559		89407.65337	
MCY	GAS	32925.3571	1	243796.974	1	68862.74135	1
MDV	GAS	151961.055	0.209348791	4876240.398	0.9662516	702265.7233	0.967475
MDV	DSL	3721.22459	0.005126536	135478.7608	0.0268458	18101.22476	0.024937
MDV	ELEC	1080.16696	0.001488089	34834.40687	0.0069026	5508.057389	0.007588
		156762.446		5046553.566		725875.0054	
MH	GAS	2891.83477	7.391564061	26265.32654	0.7300457	289.29915	0.739452
MH	DSL	1019.35336	2.605479314	9712.320006	0.2699543	101.935336	0.260548
		3911.18813		35977.64654		391.2344859	
MHDT	GAS	1456.11161	0.011737939	75284.47702	0.1200311	29133.88114	0.234853
MHDT	DSL	9430.02377	0.076016866	551923.8216	0.8799689	94917.84867	0.765147
		10886.1354		627208.2986		124051.7298	
OBUS	GAS	501.965542	0.02946728	24150.24818	0.3096605	10043.32656	0.589581
OBUS	DSL	762.396385	0.044755558	53839.186	0.6903395	6991.348292	0.410419
		1264.36193		77989.43418		17034.67485	
SBUS	GAS	249.313359	0.019631483	11500.83332	0.2645889	997.2534368	0.078526
SBUS	DSL	1014.08642	0.079851398	31965.9607	0.7354111	11702.41665	0.921474
		1263.39978		43466.79403		12699.67009	
UBUS	GAS	8.41939574	0.003929273	1059.849245	0.0177031	33.67758298	0.015717
UBUS	DSL	423.235801	0.197521187	46482.15589	0.7764118	1692.943206	0.790085
UBUS	NG	104.028857	0.04854954	12325.90971	0.2058851	416.1154282	0.194198
		535.684054		59867.91485		2142.736217	

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2022	HHDT	Aggregate	Aggregate	Gasoline	4.973172	516.9338	99.50323	3.654204	0	0.338391	0.001236	0	0.000744	0.005	0.02646	0.001344	0	0.00081	0.02	0.06174	1964.961	0	46.86739	0.097725	0	0.00044	0.140899	0	0.010576	0.494672	0	0.002301	0.136891	0.830556	0.033943	0.061166	0.721824	0	0.00252	0.136891	0.830556	0.033943	0.061166	30.00648	0	5.27737	0.019445	0	0.000464
Santa Clara	2022	HHDT	Aggregate	Aggregate	Diesel	8277.463	1011.013	88031.26	3.535499	63.08378	2.080194	0.033949	0.03347	0	0.008873	0.026088	0.035484	0.034983	0	0.035494	0.060872	1486.606	11783.13	0	0.003901	0.215524	0	0.233674	1.852143	0	0.08399	4.640183	0	0	0	0	0.095616	5.282495	0	0	0	0	0	0	0.366847	63.30293	0	0.014045	0.111321	0
Santa Clara	2022	HHDT	Aggregate	Aggregate	Natural Ga	348.7902	14223.14	1360.282	1.755776	21.14752	0	0.004789	0.030991	0	0.009	0.02646	0.005006	0.032392	0	0.036	0.06174	3203.692	4060.116	0	3.511574	1.248503	0	0.653093	0.827681	0	0.161697	0.045805	0	0	0	0	3.710887	1.306054	0	0	0	0	0	0	10.70122	21.55662	0	0	0	0
Santa Clara	2022	LDA	Aggregate	Aggregate	Gasoline	733557.7	26455304	3456649	0.03872	0	0.197227	0.001299	0	0.001748	0.002	0.01575	0.001413	0	0.001902	0.008	0.03675	259.2126	0	55.39361	0.002345	0	0.054199	0.004449	0	0.026685	0.009015	0	0.243726	0.100881	0.22086	0.178182	0.20337	0.013151	0	0.266848	0.100881	0.22086	0.178182	0.20337	0.63218	0	2.325265	0.002565	0	0.000548
Santa Clara	2022	LDA	Aggregate	Aggregate	Diesel	7146.668	268335.1	33963.02	0.071556	0	0	0.006579	0	0	0.002	0.01575	0.006877	0	0	0.008	0.03675	200.3149	0	0	0.000626	0	0	0.031487	0	0	0.013485	0	0	0	0	0	0.015352	0	0	0	0	0	0	0.198488	0	0	0.001894	0	0
Santa Clara	2022	LDA	Aggregate	Aggregate	Electricity	25894.61	943282.8	126428	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LDT1	Aggregate	Aggregate	Gasoline	73556.92	2443329	340743.8	0.091156	0	0.251292	0.001724	0	0.002226	0.002	0.01575	0.001875	0	0.002421	0.008	0.03675	300.527	0	64.49485	0.004882	0	0.070027	0.007217	0	0.028775	0.021236	0	0.344801	0.173613	0.628849	0.332831	0.420667	0.030964	0	0.377511	0.173613	0.628849	0.332831	0.420667	1.068397	0	2.450832	0.002974	0	0.000638
Santa Clara	2022	LDT1	Aggregate	Aggregate	Diesel	36.8388	667.9121	121.0603	1.185315	0	0	0.157566	0	0	0.002	0.01575	0.164691	0	0	0.008	0.03675	408.3259	0	0	0.009501	0	0	0.064183	0	0	0	0	0	0	0	0	0.232879	0	0	0	0	0	0	1.159574	0	0	0.00386	0	0
Santa Clara	2022	LDT1	Aggregate	Aggregate	Electricity	624.8771	24059.07	3099.469	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LDT2	Aggregate	Aggregate	Gasoline	250455.4	8295824	1167439	0.077278	0	0.299792	0.001307	0	0.001684	0.002	0.01575	0.001421	0	0.001831	0.008	0.03675	327.6413	0	71.42656	0.003665	0	0.072415	0.006473	0	0.033384	0.014906	0	0.339292	0.128171	0.436499	0.281495	0.299507	0.021744	0	0.371482	0.128171	0.436499	0.281495	0.299507	0.860463	0	2.923834	0.003242	0	0.000707
Santa Clara	2022	LDT2	Aggregate	Aggregate	Diesel	1663.513	62652.21	8136.947	0.039252	0	0	0.004754	0	0	0.002	0.01575	0.004969	0	0	0.008	0.03675	275.5741	0	0	0.000647	0	0	0.043316	0	0	0.013935	0	0	0	0	0	0.015864	0	0	0	0	0	0	0.123161	0	0	0.002605	0	0
Santa Clara	2022	LDT2	Aggregate	Aggregate	Electricity	2695.96	82111.52	13502.44	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Gasoline	16536.9	566343.8	246375.2	0.235238	0.038471	0.530556	0.002161	0	0.000388	0.002	0.03276	0.00235	0	0.000422	0.008	0.07644	1006.569	121.1222	18.98971	0.01086	0.121305	0.025473	0.014262	0.003125	0.041267	0.052874	0.440699	0.129054	0.125369	0.861898	0.025267	0.050121	0.077153	0.643067	0.141298	0.125369	0.861898	0.025267	0.050121	0.97349	3.751848	1.764958	0.009961	0.001199	0.000188
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Diesel	11104.44	423266.4	139679.8	1.613919	2.033114	0	0.021273	0.026869	0	0.003	0.03276	0.022235	0.028084	0	0.012	0.07644	544.3042	133.047	0	0.007318	0.005098	0	0.085557	0.020913	0	0.157544	0.10976	0	0	0	0	0.179353	0.124954	0	0	0	0	0	0	0.661457	0.909745	0	0.005146	0.001258	0
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Gasoline	2253.3	77523.96	33570.81	0.240034	0.037891	0.516259	0.002078	0	0.000346	0.002	0.03822	0.00226	0	0.000377	0.008	0.08918	1147.291	139.0737	21.54397	0.008737	0.120275	0.024583	0.015135	0.003045	0.039911	0.039365	0.434196	0.123837	0.121118	0.819863	0.023133	0.046225	0.057441	0.633578	0.135586	0.121118	0.819863	0.023133	0.046225	0.722025	3.75488	1.776904	0.011353	0.001376	0.000213
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Diesel	4438.985	166319.5	55836.85	1.346918	2.041795	0	0.021771	0.027131	0	0.003	0.03822	0.022756	0.028358	0	0.012	0.08918	612.5422	213.4891	0	0.007003	0.005098	0	0.096283	0.033558	0	0.150761	0.10976	0	0	0	0	0.171631	0.124954	0	0	0	0	0	0	0.634383	0.909745	0	0.005791	0.002018	0
Santa Clara	2022	MCY	Aggregate	Aggregate	Gasoline	32925.36	241011	65850.71	1.151611	0	0.270649	0.001812	0	0.002978	0.001	0.00504	0.001937	0	0.003161	0.004	0.01176	210.2729	0	61.39967	0.328946	0	0.256691	0.06628	0	0.015352	2.228751	0	1.954835	0.704215	2.060677	0.995009	1.817765	2.753726	0	2.127328	0.704215	2.060677	0.995009	1.817765	19.18808	0	9.0045	0.002081	0	0.000608
Santa Clara	2022	MDV	Aggregate	Aggregate	Gasoline	151961.1	4876240	702265.7	0.099589	0	0.371177	0.001397	0	0.001912	0.002	0.01575	0.001519	0	0.002079	0.008	0.03675	396.236	0	86.90417	0.004621	0	0.087878	0.007887	0	0.036541	0.019446	0	0.437645	0.147462	0.472734	0.331376	0.347901	0.028322	0	0.479161	0.147462	0.472734	0.331376	0.347901	0.980018	0	3.406111	0.003921	0	0.00086
Santa Clara	2022	MDV	Aggregate	Aggregate	Diesel	3721.225	135478.8	18101.22	0.038775	0	0	0.004203	0	0	0.002	0.01575	0.004393	0	0	0.008	0.03675	360.3121	0	0	0.000478	0	0	0.056636	0	0	0.010285	0	0	0	0	0	0.011709	0	0	0	0	0	0	0.184421	0	0	0.003406	0	0
Santa Clara	2022	MDV	Aggregate	Aggregate	Electricity	1080.167	34834.41	5508.057	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	MH	Aggregate	Aggregate	Gasoline	2891.835	26265.33	289.2991	0.413359	0	0.334516	0.001633	0	0.000362	0.003	0.05586	0.001776	0	0.000394	0.012	0.13034	1756.095	0	25.97914	0.015124	0	0.032419	0.025426	0	0.034963	0.066433	0	0.137518	0.088945	2.156488	0.036513	0.106238	0.096939	0	0.150564	0.088945	2.156488	0.036513	0.106238	1.697423	0	3.037213	0.017378	0	0.000257
Santa Clara	2022	MH	Aggregate	Aggregate	Diesel	1019.353	9712.32	101.9353	4.184918	0	0	0.085576	0	0	0.004	0.05586	0.089445	0	0	0.016	0.13034	1018.587	0	0	0.005027	0	0	0.160108	0	0	0.108225	0	0	0	0	0	0.123206	0	0	0	0	0	0	0.382773	0	0	0.009629	0	0
Santa Clara	2022	MHDT	Aggregate	Aggregate	Gasoline	1456.112	75284.48	29133.88	0.474932	0.088412	0.377896	0.001319	0	0.000469	0.003	0.05586	0.001435	0	0.00051	0.012	0.13034	1722.789	532.6547	39.09003	0.014881	0.262553	0.04023	0.023376	0.007484	0.029181	0.072945	1.011617	0.219187	0.087649	0.506692	0.018903	0.038182	0.106442	1.47615	0.239982	0.087649	0.506692	0.018903	0.038182	1.680953	15.10368	4.939745	0.017048	0.005271	0.000387
Santa Clara	2022	MHDT	Aggregate	Aggregate	Diesel	9430.024	551923.8	94917.85	2.277066	7.413096	1.687822	0.039812	0.015538	0	0.003	0.05586	0.041612	0.01624	0	0.012	0.13034	1050.628	914.98	0	0.004378	0.004667	0	0.165144	0.143822	0	0.094265	0.100481	0	0	0	0	0.107314	0.11439	0	0	0	0	0	0	0.32147	2.58681	0	0.009926	0.008644	0
Santa Clara	2022	OBUS	Aggregate	Aggregate	Gasoline	501.9655	24150.25	10043.33	0.443255	0.065137	0.32561	0.000952	0	0.000213	0.003	0.05586	0.001035	0	0.000232	0.012	0.13034	1767.375	377.9272	26.38965	0.013022	0.200837	0.030332	0.022732	0.005646	0.026387	0.061436	0.747416	0.156088	0.026802	0.295531	0.015889	0.036065	0.089647	1.090627	0.170897	0.026802	0.295531	0.015889	0.036065	1.365657	5.781487	3.261978	0.01749	0.00374	0.000261
Santa Clara	2022	OBUS	Aggregate	Aggregate	Diesel	762.3964	53839.19	6991.348	2.314382	10.4182	2.005848	0.021086	0.015288	0	0.003	0.05586	0.02204	0.015979	0	0.012	0.13034	1185.916	1892.098	0	0.002538	0.027964	0	0.18641	0.297411	0	0.054653	0.602048	0	0	0	0	0.062218	0.685386	0	0	0	0	0	0	0.239321	8.657847	0	0.011204	0.017876	0
Santa Clara	2022	SBUS	Aggregate	Aggregate	Gasoline	249.3134	11500.83	997.2534	0.430325	0.924415	0.566946	0.001196	0	0.000498	0.002	0.3192	0.001301	0	0.000541	0.008	0.7448	865.5448	2582.545	48.67377	0.011856	2.442701	0.058309	0.024366	0.088243	0.053528	0.058325	10.61061	0.332747	0.061157	0.415506	0.010413	0.025261	0.085108	15.48298	0.364316	0.061157	0.415506	0.010413	0.025261	1.259002	82.05319	8.624782	0.008565	0.025556	0.000482
Santa Clara	2022	SBUS	Aggregate	Aggregate	Diesel	1014.086	31965.96	11702.42	6.765334	45.00081	0.786274	0.042018	0.05033	0	0.003	0.3192	0.043917	0.052605	0	0.012	0.7448	1145.085	3716.49	0	0.004669	0.013069	0	0.179991	0.584181	0	0.100532	0.281366	0	0	0	0	0.114448	0.320314	0	0	0	0	0	0	0.27746	5.867721	0	0.010818	0.035112	0
Santa Clara	2022	UBUS	Aggregate	Aggregate	Gasoline	8.419396	1059.849	33.67758	0.491737	0	1.236285	0.000328	0	9.7E-05	0.003	0.05586	0.000356	0	0.000105	0.012	0.13034	2351.817	0	104.599	0.006789	0	0.178596	0.036386	0	0.091633	0.022728	0	0.768536	0.190076	1.35875	0.031079	0.049249	0.033164	0	0.84145	0.190076	1.35875	0.031079	0.049249	0.527722	0	8.852622	0.023273	0	0.001035
Santa Clara	2022	UBUS	Aggregate	Aggregate	Diesel	423.2358	46482.16	1692.943	0.803453	0	0	0.005651	0	0	0.008415	0.029326	0.005907	0	0	0.033661	0.068427	1481.178	0	0	0.077358	0	0	0.232821	0	0	0.001105	0	0	0	0	0	0.078949	0	0	0	0	0	0	0.131304	0	0	0.014002	0	0
Santa Clara	2022	UBUS	Aggregate	Aggregate	Natural Ga	104.0289	12325.91	416.1154	0.48934	0	0	0.003183	0	0	0.008475	0.029034	0.003327	0	0	0.033899	0.067746	2016.3	0	0	6.413607	0	0	0.411036	0	0	0.091638	0	0	0	0	0	6.545556	0	0	0	0	0	0	49.80397	0	0	0	0	0

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	5,595.78	355,861.24	84,412.52	1,573.40	34,384.43	13,943.00	48,327.43	5,173.76	6,753.41	11,927.17	171,745,010
Vendor	4,887.75	209,858.04	67,828.77	914.88	21,019.40	9,280.10	30,299.50	3,162.75	4,319.73	7,482.48	98,610,068
Worker	48,149.74	40,193.27	551,277.64	1,622.38	194,068.46	30,053.80	224,122.26	29,201.14	12,449.28	41,650.42	174,628,989
Total (g)	58,633.26	605,912.55	703,518.93	4,110.65	249,472.29	53,276.90	302,749.19	37,537.65	23,522.42	61,060.07	444,984,067
Total (lbs)	129.26	1,335.81	1,550.99	9.06	549.99	117.46	667.45	82.76	51.86	134.61	981,022
Total (tons)	0.06	0.67	0.78	0.00	0.27	0.06	0.33	0.04	0.03	0.07	491
Total (MT)											445

YEAR											
						Tons					
	2023	0.0100	0.1037	0.1204	0.0007	0.0427	0.0091	0.0518	0.0064	0.0040	0.0104	69.0743

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PMBW	PM10_PMTW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
Category																																		
																												19	22	23	8	9	10
Hauling	HHDT	100.0	1	2.53874E-06	0.00011586	0.428946297	1.40536E-06	0.02576025	0.0005936	2.56712E-06	5.438234	2.680938629	2.321334599	6.342288	0.39569661	0.0059193	0.0099143	0.013153522	4.87714E-07		0.060919	0.035513	0.00267	0.024671	7.19411E-07		0.026108	0.008878	0.0025549	0.0236035	6.615E-07	1065.3765	1436.676	0.0492849
	MHD	0.0	0	0.000416758	0.019674477	0.018316083	0.000210691	0.01707099	0.11201874	0.050852602	0.4315191	1.444055765	1.696525892	0.388783	0.26106305	1.1362253	0.00069591	0.010439183	9.28254E-05	0.299	0.13034	0.012	0.000427	0.006955	0.000119183	0.04499	0.05586	0.003	0.0004085	0.0066477	0.0001096	73.354013	1095.0648	9.3802733
Vendor	HHDT	62.2	0.62224	1.57969E-06	7.20921E-05	0.266905884	8.74466E-07	0.01602896	0.00036936	1.59735E-06	3.3838657	1.668176879	1.444418259	3.9464	0.24621673	0.0036832	0.00616903	0.008184597	3.03473E-07		0.037906	0.022097	0.001662	0.015351	4.47644E-07		0.016246	0.005524	0.0015898	0.0146869	4.116E-07	662.91573	893.95174	0.0306668
	MHD	37.8	0.37776	0.000157436	0.007432307	0.006919154	7.95914E-05	0.0064488	0.04231663	0.019210276	0.1630123	0.545512093	0.640886185	0.146868	0.09862019	0.4292249	0.00026289	0.003943546	3.50661E-05		0.049238	0.004533	0.000161	0.002627	4.50232E-05		0.021102	0.001133	0.0001543	0.0025113	4.14E-05	27.710496	413.67593	3.5435283
			1	0.000159016	0.007504399	0.273825038	8.04658E-05	0.02247776	0.04268599	0.019211873	3.546878	2.213688973	2.085304444	4.093269	0.34483691	0.4329081	0.00643192	0.012128143	3.53696E-05	0.299	0.087144	0.026631	0.001823	0.017978	4.54708E-05	0.04499	0.037347	0.006658	0.0017441	0.0171982	4.181E-05	690.62622	1307.6277	3.5741952
Worker	LDA	71.9	0.71896	0.027380942	0.064750152	0	0.024204142	0.00536307	0.14583291	0.151957547	0	0.023777707	0.126651097	0	0.40410757	1.5533647	0	6.66007E-05	0		0.026422	0.005752	0	0.000975	0.001254204		0.011324	0.001438	0	0.0008976	0.0011532	0	176.34721	37.39822
	LDT1	6.4	0.06425	0.005267635	0.010153724	0	0.004238065	0.00115119	0.03711994	0.019666733	0	0.005016321	0.014794948	0	0.06081036	0.1507512	0	0.000168067	0		0.002361	0.000514	0	0.000113	0.000144162		0.001012	0.000129	0	0.0001044	0.0001326	0	18.819901	4.0395556
	LDT2	21.7	0.21678	0.013286385	0.026191042	0	0.012625971	0.00284977	0.09071986	0.066660319	0	0.014606619	0.058622405	0	0.17073258	0.6038367	0	0.002263058	2.01231E-05		0.007967	0.001734	0	0.000301	0.000378357		0.003414	0.000434	0	0.0002772	0.0003479	0	68.669223	14.86696
			1	0.045934962	0.101094918	0	0.041068178	0.00936404	0.27367271	0.238284599	0	0.043400647	0.200068449	0	0.63565051	2.3079527	0	0.002497725	2.01231E-05	0.299	0.03675	0.008	0	0.001389	0.001776724	0.04499	0.01575	0.002	0	0.0012793	0.0016337	0	263.83633	56.304735

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2023**	**1.0007**	**1.0006**	**1.0007**	**1.0032**	**1.0027**	**1.0126**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	4.81544789	5.31026E-05	553.4124283	0.0005274	96.34748142	0.001062
HHDT	DSL	8401.7898	0.092651226	1034051.181	0.9854697	89180.29332	0.983441
HHDT	NG	360.32457	0.0039735	14693.24691	0.0140029	1405.265825	0.015497
		8766.92982		1049297.84		90681.90662	
LDA	GAS	751359.646	0.202238765	26739811.21	0.9531327	3542534.481	0.953522
LDA	DSL	7591.98746	0.002043488	280497.6881	0.0099983	36090.41698	0.009714
LDA	ELEC	28074.667	0.007556682	1034348.453	0.036869	136585.9223	0.036764
		787026.301		28054657.35		3715210.82	
LDT1	GAS	75517.84	0.213158377	2475366.781	0.9873152	350250.9794	0.988626
LDT1	DSL	34.1777023	9.64708E-05	620.5175918	0.0002475	112.4335256	0.000317
LDT1	ELEC	788.414404	0.002225396	31182.479	0.0124373	3917.009873	0.011056
		76340.4321		2507169.777		354280.4228	
LDT2	GAS	254167.458	0.210107264	8294772.476	0.9805667	1184411.857	0.979093
LDT2	DSL	1802.6879	0.00149019	66004.68597	0.0078027	8781.20325	0.007259
LDT2	ELEC	3304.55481	0.002731707	98384.63719	0.0116305	16510.27624	0.013648
		259274.701		8459161.8		1209703.337	
LHDT1	GAS	16555.1256	0.042179451	562141.9911	0.5631892	246646.7045	0.628411
LHDT1	DSL	11594.6392	0.029541033	435998.6325	0.4368108	145845.9755	0.371589
		28149.7649	0.071720484	998140.6235		392492.6801	
LHDT2	GAS	2285.0183	0.024657728	77947.41477	0.3124285	34043.36796	0.367363
LHDT2	DSL	4660.72768	0.050294107	171541.415	0.6875715	58626.09097	0.632637
		6945.74597	0.074951835	249488.8298		92669.45893	
MCY	GAS	33683.4869	1	243796.974	1	68862.74135	1
MDV	GAS	154431.401	0.20828405	4896062.632	0.9625562	714241.0549	0.963308
MDV	DSL	4004.42906	0.005400836	142223.8665	0.0279609	19410.39187	0.026179
MDV	ELEC	1532.63784	0.002067093	48234.63357	0.0094828	7794.674223	0.010513
		159968.467		5086521.132		741446.121	
MH	GAS	2857.03961	7.303345306	26157.0252	0.7252776	285.8182429	0.730627
MH	DSL	1053.77777	2.693733356	9907.819006	0.2747224	105.3777766	0.269373
		3910.81738		36064.84421		391.1960196	
MHDT	GAS	1507.68027	0.012282586	78317.1453	0.1229399	30165.66682	0.24575
MHDT	DSL	9262.82223	0.07546123	558718.8488	0.8770601	92583.75351	0.75425
		10770.5025		637035.9941		122749.4203	
OBUS	GAS	503.45719	0.029662155	23697.76723	0.3075551	10073.17146	0.59348
OBUS	DSL	753.400099	0.044388025	53354.32515	0.6924449	6899.876914	0.40652
		1256.85729		77052.09238		16973.04837	
SBUS	GAS	263.522939	0.020666756	11968.76865	0.2728641	1054.091756	0.082667
SBUS	DSL	1013.61385	0.079492548	31894.70309	0.7271359	11696.96329	0.917333
		1277.13679		43863.47173		12751.05504	
UBUS	GAS	8.42322255	0.003929273	1060.33097	0.0177031	33.69289018	0.015717
UBUS	DSL	430.528695	0.200833446	46874.38344	0.7826076	1722.114781	0.803334
UBUS	NG	96.9756167	0.04523728	11960.41172	0.1996892	387.9024668	0.180949
		535.927534		59895.12613		2143.710138	

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLE	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2023	HHDT	Aggregate	Aggregate	Gasoline	4.815448	553.4124	96.34748	3.178298	0	0.254165	0.001157	0	0.000623	0.005	0.02646	0.001259	0	0.000677	0.02	0.06174	1915.642	0	46.38676	0.084318	0	0.000462	0.130889	0	0.008571	0.409676	0	0.002416	0.109047	0.558691	0.026465	0.047808	0.597798	0	0.002645	0.109047	0.558691	0.026465	0.047808	27.8207	0	5.57125	0.018957	0	0.000459
Santa Clara	2023	HHDT	Aggregate	Aggregate	Diesel	8401.79	1034051	89180.29	2.696198	57.80539	2.360147	0.023887	0.026373	0	0.008879	0.026103	0.024967	0.027565	0	0.035514	0.060907	1411.729	11326.45	0	0.001106	0.214953	0	0.221904	1.78036	0	0.023817	4.627869	0	0	0	0	0	0.027114	5.268477	0	0	0	0	0	0.233741	67.52667	0	0.013337	0.107007	0
Santa Clara	2023	HHDT	Aggregate	Aggregate	Natural Ga	360.3246	14693.25	1405.266	1.588314	20.76108	0	0.004529	0.028055	0	0.009	0.02646	0.004734	0.029323	0	0.036	0.06174	3174.275	4018.428	0	3.456549	1.237751	0	0.647097	0.819183	0	0.148044	0.042416	0	0	0	0	0	3.64007	1.291393	0	0	0	0	0	10.76049	21.60789	0	0	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Gasoline	751359.6	26739811	3542534	0.034059	0	0.184615	0.001247	0	0.001682	0.002	0.01575	0.001356	0	0.001829	0.008	0.03675	252.091	0	53.87356	0.002048	0	0.050071	0.004113	0	0.025656	0.007696	0	0.221504	0.094205	0.212597	0.166193	0.187545	0.011228	0	0.242518	0.094205	0.212597	0.166193	0.187545	0.586148	0	2.259775	0.002495	0	0.000533
Santa Clara	2023	LDA	Aggregate	Aggregate	Diesel	7591.987	280497.7	36090.42	0.058679	0	0	0.005598	0	0	0.002	0.01575	0.005851	0	0	0.008	0.03675	195.1926	0	0	0.000552	0	0	0.030682	0	0	0.011887	0	0	0	0	0	0	0.013532	0	0	0	0	0	0.188023	0	0	0.001845	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Electricity	28074.67	1034348	136585.9	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Gasoline	75517.84	2475367	350251	0.078745	0	0.232751	0.001604	0	0.002087	0.002	0.01575	0.001745	0	0.00227	0.008	0.03675	292.8794	0	62.80265	0.004214	0	0.063907	0.006493	0	0.02759	0.018087	0	0.309393	0.159698	0.584022	0.309209	0.384203	0.026384	0	0.338746	0.159698	0.584022	0.309209	0.384203	0.955745	0	2.366858	0.002898	0	0.000621
Santa Clara	2023	LDT1	Aggregate	Aggregate	Diesel	34.1777	620.5176	112.4335	1.098891	0	0	0.146297	0	0	0.002	0.01575	0.152912	0	0	0.008	0.03675	401.6268	0	0	0.008837	0	0	0.06313	0	0	0.190256	0	0	0	0	0	0	0.216594	0	0	0	0	0	1.080107	0	0	0.003797	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Electricity	788.4144	31182.48	3917.01	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Gasoline	254167.5	8294772	1184412	0.06837	0	0.275999	0.001263	0	0.001639	0.002	0.01575	0.001374	0	0.001783	0.008	0.03675	316.8848	0	69.17216	0.003305	0	0.067695	0.00592	0	0.031692	0.013288	0	0.313842	0.123254	0.427158	0.276975	0.291298	0.019387	0	0.343617	0.123254	0.427158	0.276975	0.291298	0.800025	0	2.837237	0.003136	0	0.000685
Santa Clara	2023	LDT2	Aggregate	Aggregate	Diesel	1802.688	66004.69	8781.203	0.037098	0	0	0.004581	0	0	0.002	0.01575	0.004788	0	0	0.008	0.03675	268.3329	0	0	0.000636	0	0	0.042178	0	0	0.01369	0	0	0	0	0	0	0.015585	0	0	0	0	0	0.124122	0	0	0.002537	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Electricity	3304.555	98384.64	16510.28	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2023	LHDT1	Aggregate	Aggregate	Gasoline	16555.13	562142	246646.7	0.210457	0.037398	0.511224	0.002137	0	0.000377	0.002	0.03276	0.002324	0	0.00041	0.008	0.07644	994.5276	120.0678	18.82225	0.009676	0.118805	0.02387	0.012895	0.003089	0.040194	0.046707	0.428491	0.120584	0.120359	0.829144	0.024473	0.047994	0.068155	0.625253	0.132025	0.120359	0.829144	0.024473	0.047994	0.867722	3.754766	1.724	0.009842	0.001188	0.000186
Santa Clara	2023	LHDT1	Aggregate	Aggregate	Diesel	11594.64	435998.6	145846	1.400562	1.919948	0	0.019496	0.026734	0	0.003	0.03276	0.020378	0.027943	0	0.012	0.07644	535.8142	131.265	0	0.007088	0.005098	0	0.084223	0.020633	0	0.152594	0.10976	0	0	0	0	0	0.173718	0.124954	0	0	0	0	0.641529	0.909745	0	0.005065	0.001241	0
Santa Clara	2023	LHDT2	Aggregate	Aggregate	Gasoline	2285.018	77947.41	34043.37	0.21093	0.036728	0.496392	0.002042	0	0.000334	0.002	0.03822	0.00222	0	0.000363	0.008	0.08918	1132.921	137.76	21.32176	0.007566	0.117557	0.022949	0.013529	0.00301	0.038884	0.03359	0.420989	0.114958	0.114086	0.752468	0.022171	0.043386	0.049014	0.614306	0.125864	0.114086	0.752468	0.022171	0.043386	0.620201	3.758932	1.718516	0.011211	0.001363	0.000211
Santa Clara	2023	LHDT2	Aggregate	Aggregate	Diesel	4660.728	171541.4	58626.09	1.17888	1.93121	0	0.020832	0.02707	0	0.003	0.03822	0.021774	0.028294	0	0.012	0.08918	603.2432	210.8377	0	0.00683	0.005098	0	0.094821	0.033141	0	0.147052	0.10976	0	0	0	0	0	0.167409	0.124954	0	0	0	0	0.621451	0.909745	0	0.005703	0.001993	0
Santa Clara	2023	MCY	Aggregate	Aggregate	Gasoline	33683.49	242470.7	67366.97	1.148719	0	0.270672	0.00184	0	0.002859	0.001	0.00504	0.001969	0	0.003039	0.004	0.01176	210.1672	0	61.03922	0.326994	0	0.255241	0.066143	0	0.01536	2.208057	0	1.941958	0.689105	1.969445	0.985054	1.809555	0.736079	0	2.11358	0.689105	1.969445	0.985054	1.809555	18.86893	0	9.034026	0.00208	0	0.000604
Santa Clara	2023	MDV	Aggregate	Aggregate	Gasoline	154431.4	4896063	714241.1	0.085683	0	0.336488	0.001332	0	0.001823	0.002	0.01575	0.001448	0	0.001982	0.008	0.03675	383.1839	0	84.08131	0.004049	0	0.08064	0.007039	0	0.034344	0.016817	0	0.396565	0.140569	0.457303	0.323766	0.336538	0.024505	0	0.434185	0.140569	0.457303	0.323766	0.336538	0.891357	0	3.240031	0.003792	0	0.000832
Santa Clara	2023	MDV	Aggregate	Aggregate	Diesel	4004.429	142223.9	19410.39	0.034292	0	0	0.003829	0	0	0.002	0.01575	0.004002	0	0	0.008	0.03675	350.448	0	0	0.000445	0	0	0.055086	0	0	0.009578	0	0	0	0	0	0	0.010904	0	0	0	0	0	0.180483	0	0	0.003313	0	0
Santa Clara	2023	MDV	Aggregate	Aggregate	Electricity	1532.638	48234.63	7794.674	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2023	MH	Aggregate	Aggregate	Gasoline	2857.04	26157.03	285.8182	0.361451	0	0.336127	0.001555	0	0.000345	0.003	0.05586	0.001691	0	0.000375	0.012	0.13034	1731.827	0	25.56622	0.013045	0	0.031746	0.02323	0	0.035777	0.05596	0	0.132332	0.081683	1.97006	0.033844	0.096831	0.081657	0	0.144887	0.081683	1.97006	0.033844	0.096831	1.390474	0	2.91812	0.017138	0	0.000253
Santa Clara	2023	MH	Aggregate	Aggregate	Diesel	1053.778	9907.819	105.3778	4.0099	0	0	0.079211	0	0	0.004	0.05586	0.082793	0	0	0.016	0.13034	1007.175	0	0	0.004873	0	0	0.158314	0	0	0.104917	0	0	0	0	0	0	0.119441	0	0	0	0	0	0.367033	0	0	0.009521	0	0
Santa Clara	2023	MHDT	Aggregate	Aggregate	Gasoline	1507.68	78317.15	30165.67	0.385258	0.088623	0.367592	0.001293	0	0.000446	0.003	0.05586	0.001406	0	0.000485	0.012	0.13034	1697.438	526.34	38.16999	0.011942	0.266499	0.038604	0.019927	0.007724	0.029367	0.057622	1.014767	0.206928	0.080059	0.455824	0.017154	0.033931	0.084081	1.480746	0.22656	0.080059	0.455824	0.017154	0.033931	1.316681	15.14023	4.623501	0.016798	0.005209	0.000378
Santa Clara	2023	MHDT	Aggregate	Aggregate	Diesel	9262.822	558718.8	92583.75	1.59247	5.703996	2.12952	0.007398	0.005414	0	0.003	0.05586	0.007733	0.005658	0	0.012	0.13034	1010.629	886.4048	0	0.000529	0.003602	0	0.158857	0.13933	0	0.011387	0.077551	0	0	0	0	0	0.012963	0.088286	0	0	0	0	0.113094	2.687765	0	0.009548	0.008374	0
Santa Clara	2023	OBUS	Aggregate	Aggregate	Gasoline	503.4572	23697.77	10073.17	0.401971	0.065148	0.321785	0.000992	0	0.000219	0.003	0.05586	0.001079	0	0.000239	0.012	0.13034	1743.614	374.6133	26.08015	0.011771	0.201157	0.029667	0.020963	0.005691	0.026276	0.05538	0.74759	0.152323	0.027045	0.299878	0.01619	0.03654	0.080811	1.090882	0.166775	0.027045	0.299878	0.01619	0.03654	1.211154	5.782545	3.193149	0.017254	0.003707	0.000258
Santa Clara	2023	OBUS	Aggregate	Aggregate	Diesel	753.4001	53354.33	6899.877	1.902854	8.28017	2.210652	0.009253	0.002588	0	0.003	0.05586	0.009671	0.002705	0	0.012	0.13034	1163.247	1820.683	0	0.000567	0.024706	0	0.182846	0.286186	0	0.012205	0.531913	0	0	0	0	0	0.013895	0.605542	0	0	0	0	0.141032	9.053135	0	0.01099	0.017201	0
Santa Clara	2023	SBUS	Aggregate	Aggregate	Gasoline	263.5229	11968.77	1054.092	0.420713	0.924728	0.578334	0.001201	0	0.000506	0.002	0.3192	0.001307	0	0.00055	0.008	0.7448	859.0893	2565.057	48.16666	0.011122	2.441451	0.057864	0.023879	0.088232	0.054355	0.054742	10.61517	0.330464	0.063152	0.426847	0.010977	0.026004	0.07988	15.48964	0.361817	0.063152	0.426847	0.010977	0.026004	1.167899	82.08092	8.465591	0.008501	0.025383	0.000477
Santa Clara	2023	SBUS	Aggregate	Aggregate	Diesel	1013.614	31894.7	11696.96	6.544978	44.13946	0.832887	0.040645	0.046993	0	0.003	0.3192	0.042483	0.049118	0	0.012	0.7448	1136.76	3703.284	0	0.004568	0.012858	0	0.178683	0.582105	0	0.098352	0.27682	0	0	0	0	0	0.111967	0.315138	0	0	0	0	0.275014	6.038953	0	0.01074	0.034987	0
Santa Clara	2023	UBUS	Aggregate	Aggregate	Gasoline	8.423223	1060.331	33.69289	0.150806	0	0.638272	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.542	0	88.49758	0.007038	0	0.09018	0.015696	0	0.066738	0.022728	0	0.374288	0.008476	0.037646	0.001991	0.00493	0.033164	0	0.409798	0.008476	0.037646	0.001991	0.00493	0.258128	0	8.852622	0.019362	0	0.000876
Santa Clara	2023	UBUS	Aggregate	Aggregate	Diesel	430.5287	46874.38	1722.115	0.802545	0	0	0.005646	0	0	0.008399	0.029403	0.005901	0	0	0.033598	0.068607	1480.062	0	0	0.077245	0	0	0.232645	0	0	0.001104	0	0	0	0	0	0	0.078834	0	0	0	0	0	0.131094	0	0	0.013992	0	0
Santa Clara	2023	UBUS	Aggregate	Aggregate	Natural Ga	96.97562	11960.41	387.9025	0.491564	0	0	0.003197	0	0	0.008538	0.028723	0.003341	0	0	0.034153	0.06702	2024.074	0	0	6.451045	0	0	0.412621	0	0	0.092173	0	0	0	0	0	0	6.583765	0	0	0	0	0	50.12464	0	0	0	0	0

Project	**SJ Senior Living**	**CalEEMod EMFAC2017 Emission Factors Input**											**Year**	**2024**
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004988	0.003038	0.003579	0.024725094	0.007064	0	0	0.053967	0
A	CH4_RUNEX	0.00172	0.003601	0.002932	0.0034	0.007858	0.006654	0.001694	0.049109234	0.003624	1.349012	0.325313	0.006018	0.009557
A	CH4_STREX	0.044075	0.05761	0.06177	0.070824	0.013865	0.007729	0.009132	4.43811E-07	0.017163	0.001538	0.253919	0.004972	0.02247
A	CO_IDLEX	0	0	0	0	0.18374	0.137239	0.390727	6.332534788	0.580075	0	0	2.273981	0
A	CO_RUNEX	0.525274	0.854913	0.738224	0.784848	0.708735	0.587734	0.232554	0.401352061	0.42749	10.11873	18.59611	0.493783	0.933761
A	CO_STREX	2.091078	2.265361	2.701442	2.959095	1.045963	0.600453	1.069371	0.005942222	1.839982	0.139137	9.061179	0.715904	2.032378
A	CO2_NBIO_IDLEX	0	0	0	0	8.858719	13.87898	72.07972	1048.877326	92.65691	0	0	346.7845	0
A	CO2_NBIO_RUNEX	239.4505	286.6725	307.9995	372.4198	779.3387	754.9172	1080.76	1413.895929	1326.082	1597.162	210.0772	1049.23	1501.42
A	CO2_NBIO_STREX	50.82491	61.54625	66.71216	79.52882	11.54721	7.594669	9.152658	0.047202677	15.17619	1.392642	60.71341	4.118282	18.13538
A	NOX_IDLEX	0	0	0	0	0.05646	0.093939	0.413905	5.391729563	0.37569	0	0	3.438336	0
A	NOX_RUNEX	0.029391	0.067754	0.059969	0.071504	0.645533	0.773009	1.448062	2.686297103	1.466446	0.729407	1.146289	4.645105	1.307268
A	NOX_STREX	0.165155	0.213522	0.249233	0.292815	0.30476	0.171871	1.698951	2.321261226	1.093896	0.010827	0.270709	0.856319	0.243677
A	PM10_IDLEX	0	0	0	0	0.000842	0.001437	0.000369	0.002582324	0.000122	0	0	0.003612	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060952091	0.13034	0.069383	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009779	0.010769	0.012	0.035531716	0.012	0.033326	0.004	0.010877	0.013117
A	PM10_RUNEX	0.001296	0.001646	0.001347	0.001438	0.009623	0.015204	0.007023	0.024936873	0.007393	0.005328	0.001997	0.029851	0.022656
A	PM10_STREX	0.00168	0.002108	0.001701	0.00181	0.000247	0.000127	0.000115	6.20482E-07	0.000145	1.52E-05	0.00293	4.83E-05	0.000261
A	PM25_IDLEX	0	0	0	0	0.000805	0.001375	0.000353	0.002470614	0.000117	0	0	0.003456	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026122325	0.05586	0.029736	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002445	0.002692	0.003	0.008882929	0.003	0.008332	0.001	0.002719	0.003279
A	PM25_RUNEX	0.001194	0.001514	0.00124	0.001326	0.009159	0.014521	0.006713	0.02385809	0.00706	0.005096	0.001865	0.028546	0.021632
A	PM25_STREX	0.001544	0.001938	0.001564	0.001664	0.000228	0.000117	0.000106	5.7051E-07	0.000133	1.4E-05	0.002752	4.44E-05	0.00024
A	ROG_DIURN	0.035268	0.074886	0.059509	0.0674	0.001912	0.000985	0.000383	2.04804E-06	0.00109	2.11E-05	1.802995	0.000567	0.638647
A	ROG_HTSK	0.084451	0.14553	0.11595	0.128626	0.071617	0.03871	0.018244	9.33924E-05	0.016091	0.000161	0.676373	0.005509	0.054262
A	ROG_IDLEX	0	0	0	0	0.020629	0.015457	0.018226	0.427772974	0.046173	0	0	0.252008	0
A	ROG_RESTL	0.031475	0.061226	0.057117	0.065393	0.000985	0.000514	0.000198	1.14427E-06	0.000485	8.98E-06	0.97629	0.000247	0.227116
A	ROG_RUNEX	0.006416	0.015308	0.011766	0.014114	0.088883	0.108465	0.015787	0.02569783	0.02373	0.019675	2.190481	0.082853	0.063008
A	ROG_RUNLS	0.19586	0.538092	0.408725	0.425225	0.497047	0.248914	0.102215	0.000473173	0.179468	0.000814	1.887358	0.036799	1.296192
A	ROG_STREX	0.192338	0.274731	0.283917	0.344096	0.069832	0.038485	0.048205	2.32277E-06	0.087883	0.006407	1.930344	0.028372	0.092183
A	SO2_IDLEX	0	0	0	0	8.59E-05	0.000133	0.000684	0.009760709	0.00088	0	0	0.003301	0
A	SO2_RUNEX	9.32E-05	0.002619	0.010304	0.003606	0.007608	0.007289	0.010304	0.012940727	0.012763	0.011293	0.002079	0.01002	0.014735
A	SO2_STREX	0	0	9.06E-05	0.000771	0.000114	7.52E-05	9.06E-05	4.67109E-07	0.00015	1.38E-05	0.000601	4.08E-05	0.000179
A	TOG_DIURN	0.035268	0.074886	0.059509	0.0674	0.001912	0.000985	0.000383	2.04804E-06	0.00109	2.11E-05	1.802995	0.000567	0.638647
A	TOG_HTSK	0.084451	0.14553	0.11595	0.128626	0.071617	0.03871	0.018244	9.33924E-05	0.016091	0.000161	0.676373	0.005509	0.054262
A	TOG_IDLEX	0	0	0	0	0.029037	0.020764	0.02476	0.491871395	0.059643	0	0	0.360804	0
A	TOG_RESTL	0.031475	0.061226	0.057117	0.065393	0.000985	0.000514	0.000198	1.14427E-06	0.000485	8.98E-06	0.97629	0.000247	0.227116
A	TOG_RUNEX	0.009328	0.022322	0.017133	0.020501	0.108536	0.126319	0.019853	0.077498474	0.03185	1.377227	2.721006	0.098738	0.082805
A	TOG_RUNLS	0.19586	0.538092	0.408725	0.425225	0.497047	0.248914	0.102215	0.000473173	0.179468	0.000814	1.887358	0.036799	1.296192
A	TOG_STREX	0.210586	0.300795	0.310854	0.376741	0.076457	0.042137	0.052778	2.54314E-06	0.096221	0.007015	2.101179	0.031064	0.100929

Project **SJ Senior Living** **CalEEMod EMFAC2017 Fleet Mix Input**

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.00092	0.000752

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2024**	**1.0012**	**1.001**	**1.0011**	**1.0051**	**1.0044**	**1.0207**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	4.84147788	5.17072E-05	594.9439446	0.0005539	96.86828935	0.001035
HHDT	DSL	8656.54003	0.092452244	1058417.656	0.9853705	92089.70552	0.983522
HHDT	NG	370.765086	0.003959788	15119.11443	0.0140757	1445.983835	0.015443
		9032.1466		1074131.714		93632.55764	
LDA	GAS	768835.879	0.201678037	26997720.33	0.949575	3625781.847	0.951101
LDA	DSL	8011.40793	0.002101521	291515.8709	0.0102533	38101.0904	0.009995
LDA	ELEC	30564.2821	0.008017504	1142136.7	0.0401717	148311.4314	0.038904
		807411.569		28431372.9		3812194.369	
LDT1	GAS	77491.4919	0.212527214	2505904.5	0.9843415	359687.4033	0.986474
LDT1	DSL	31.5405256	8.65027E-05	577.78032	0.000227	104.3444755	0.000286
LDT1	ELEC	971.307535	0.002663896	39285.06821	0.0154315	4827.401743	0.01324
		78494.34		2545767.349		364619.1495	
LDT2	GAS	257922.088	0.209580619	8298132.338	0.9782123	1201453.102	0.976269
LDT2	DSL	1933.86431	0.001571407	68985.44168	0.0081322	9385.606998	0.007626
LDT2	ELEC	3976.56681	0.003231252	115838.712	0.0136555	19819.40381	0.016105
		263832.52		8482956.492		1230658.113	
LHDT1	GAS	16595.2945	0.041575247	558796.3061	0.5551684	247245.1616	0.619409
LHDT1	DSL	12077.3367	0.030256664	447738.4813	0.4448316	151917.702	0.380591
		28672.6312	0.071831911	1006534.787		399162.8637	
LHDT2	GAS	2318.35111	0.024177086	78374.99134	0.3077393	34539.9772	0.360203
LHDT2	DSL	4877.31215	0.050863389	176304.8377	0.6922607	61350.45125	0.639797
		7195.66326	0.075040475	254679.8291		95890.42844	
MCY	GAS	34431.3707	1	243796.974	1	68862.74135	1
MDV	GAS	156824.503	0.207195889	4915329.582	0.9588325	725874.2983	0.959022
MDV	DSL	4279.34381	0.005653851	148384.3757	0.0289453	20665.80245	0.027304
MDV	ELEC	2041.89298	0.002697741	62655.18542	0.0122221	10349.9306	0.013674
		163145.74		5126369.143		756890.0314	
MH	GAS	2827.42448	7.219950725	26048.95454	0.7208066	282.8555448	0.722284
MH	DSL	1087.57166	2.777161295	10089.66545	0.2791934	108.7571664	0.277716
		3914.99614		36138.62		391.6127112	
MHDT	GAS	1564.85717	0.012292891	81219.93946	0.1254151	31309.66227	0.245956
MHDT	DSL	9624.84768	0.075608948	566389.2465	0.8745849	95988.07113	0.754044
		11189.7048		647609.186		127297.7334	
OBUS	GAS	504.735629	0.029508717	23300.25921	0.3053353	10098.75047	0.59041
OBUS	DSL	763.942902	0.044662936	53010.14045	0.6946647	7005.877548	0.40959
		1268.67853		76310.39965		17104.62802	
SBUS	GAS	277.221909	0.021692459	12408.75559	0.2807991	1108.887634	0.08677
SBUS	DSL	1011.34289	0.079137014	31782.10907	0.7192009	11670.75674	0.91323
		1288.5648		44190.86467		12779.64438	
UBUS	GAS	8.42704935	0.003929273	1060.812695	0.0177031	33.70819739	0.015717
UBUS	DSL	430.699381	0.200821832	46893.42079	0.78257	1722.797525	0.803287
UBUS	NG	97.044584	0.045248895	11968.10394	0.1997269	388.1783359	0.180996
		536.171015		59922.33742		2144.684059	

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2024	HHDT	Aggregate	Aggregate	Gasoline	4.841478	594.9439	96.86829	3.020299	0	0.189099	0.00112	0	0.000551	0.005	0.02646	0.001219	0	0.0006	0.02	0.06174	1864.547	0	45.62595	0.076898	0	0.000429	0.12764	0	0.006341	0.362275	0	0.002245	0.090273	0.457367	0.02213	0.039608	0.528631	0	0.002458	0.090273	0.457367	0.02213	0.039608	27.06461	0	5.743732	0.018451	0	0.000452
Santa Clara	2024	HHDT	Aggregate	Aggregate	Diesel	8656.54	1058418	92089.71	2.703911	57.44438	2.359952	0.02415	0.025633	0	0.008883	0.026117	0.025242	0.026792	0	0.035534	0.06094	1388.989	11174.98	0	0.001112	0.214832	0	0.21833	1.756551	0	0.023933	4.625274	0	0	0	0	0.027246	5.265522	0	0	0	0	0	0	0.237639	67.56762	0	0.013122	0.105576	0
Santa Clara	2024	HHDT	Aggregate	Aggregate	Natural Ga	370.7651	15119.11	1445.984	1.4401	20.42228	0	0.004303	0.025442	0	0	0.009	0.02646	0.004498	0.026593	0	0.036	0.06174	3139.748	3971.23	0	3.408101	1.228196	0	0.640058	0.809561	0	0.135992	0.039404	0	0	0	0	3.577682	1.278365	0	0	0	0	0	0	10.81294	21.6569	0	0	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Gasoline	768835.9	26997720	3625782	0.030395	0	0.173438	0.0012	0	0.001624	0.002	0.01575	0.001305	0	0.001766	0.008	0.03675	244.9997	0	52.35424	0.001806	0	0.046341	0.003843	0	0.024653	0.006637	0	0.202005	0.088504	0.205724	0.155728	0.174002	0.009684	0	0.22117	0.088504	0.205724	0.155728	0.174002	0.54881	0	2.188955	0.002424	0	0.000518
Santa Clara	2024	LDA	Aggregate	Aggregate	Diesel	8011.408	291515.9	38101.09	0.048102	0	0	0.004683	0	0	0.002	0.01575	0.004895	0	0	0.008	0.03675	190.0661	0	0	0.000484	0	0	0.029876	0	0	0.010417	0	0	0	0	0	0.011859	0	0	0	0	0	0	0.179098	0	0	0.001797	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Electricity	30564.28	1142137	148311.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Gasoline	77491.49	2505905	359687.4	0.068518	0	0.216191	0.0015	0	0.001965	0.002	0.01575	0.001632	0	0.002137	0.008	0.03675	285.2357	0	61.12483	0.003656	0	0.0584	0.005889	0	0.026446	0.015495	0	0.278192	0.147313	0.544925	0.287739	0.351787	0.022607	0	0.304585	0.147313	0.544925	0.287739	0.351787	0.864479	0	2.286362	0.002823	0	0.000605
Santa Clara	2024	LDT1	Aggregate	Aggregate	Diesel	31.54053	577.7803	104.3445	1.003934	0	0	0.132094	0	0	0.002	0.01575	0.138066	0	0	0.008	0.03675	393.8059	0	0	0.007979	0	0	0.061901	0	0	0.171786	0	0	0	0	0	0.195567	0	0	0	0	0	0	0.993473	0	0	0.003723	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Electricity	971.3075	39285.07	4827.402	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Gasoline	257922.1	8298132	1201453	0.060942	0	0.254985	0.001226	0	0.001602	0.002	0.01575	0.001333	0	0.001742	0.008	0.03675	306.3042	0	66.94798	0.002992	0	0.063272	0.005453	0	0.030095	0.011904	0	0.290499	0.118569	0.418242	0.272186	0.28339	0.017369	0	0.31806	0.118569	0.418242	0.272186	0.28339	0.750324	0	2.754987	0.003031	0	0.000663
Santa Clara	2024	LDT2	Aggregate	Aggregate	Diesel	1933.864	68985.44	9385.607	0.034803	0	0	0.004306	0	0	0.002	0.01575	0.004501	0	0	0.008	0.03675	261.017	0	0	0.000618	0	0	0.041028	0	0	0.013297	0	0	0	0	0	0.015138	0	0	0	0	0	0	0.124646	0	0	0.002468	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Electricity	3976.567	115838.7	19819.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Gasoline	16595.29	558796.3	247245.2	0.188441	0.036329	0.492017	0.002119	0	0.000367	0.002	0.03276	0.002304	0	0.0004	0.008	0.07644	981.413	118.8928	18.64229	0.008635	0.116255	0.022385	0.011684	0.00305	0.039132	0.041266	0.416309	0.11274	0.115621	0.802453	0.023685	0.04598	0.060215	0.607477	0.123436	0.115621	0.802453	0.023685	0.04598	0.775411	3.757388	1.688646	0.009712	0.001177	0.000184
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Diesel	12077.34	447738.5	151917.7	1.216004	1.816109	0	0.017946	0.026621	0	0.003	0.03276	0.018757	0.027824	0	0.012	0.07644	527.1415	129.4169	0	0.006889	0.005098	0	0.082859	0.020343	0	0.148312	0.10976	0	0	0	0	0.168843	0.124954	0	0	0	0	0	0	0.625521	0.909745	0	0.004983	0.001223	0
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Gasoline	2318.351	78374.99	34539.98	0.186009	0.035621	0.477152	0.002016	0	0.000324	0.002	0.03822	0.002192	0	0.000352	0.008	0.08918	1117.473	136.319	21.08444	0.006588	0.114918	0.021458	0.012162	0.002973	0.037878	0.028759	0.40841	0.106844	0.107467	0.691039	0.021248	0.040757	0.041965	0.595951	0.11698	0.107467	0.691039	0.021248	0.040757	0.534699	3.762482	1.666987	0.011058	0.001349	0.000209
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Diesel	4877.312	176304.8	61350.45	1.033956	1.829953	0	0.02008	0.027033	0	0.003	0.03822	0.020988	0.028255	0	0.012	0.08918	593.7458	208.0708	0	0.006684	0.005098	0	0.093329	0.032706	0	0.143898	0.10976	0	0	0	0	0.163818	0.124954	0	0	0	0	0	0	0.61131	0.909745	0	0.005613	0.001967	0
Santa Clara	2024	MCY	Aggregate	Aggregate	Gasoline	34431.37	243797	68862.74	1.146289	0	0.270709	0.001865	0	0.002752	0.001	0.00504	0.001997	0	0.00293	0.004	0.01176	210.0772	0	60.71341	0.325313	0	0.253919	0.066025	0	0.015366	2.190481	0	1.930344	0.676373	1.887358	0.97629	1.802995	2.721006	0	2.101179	0.676373	1.887358	0.97629	1.802995	18.59611	0	9.061179	0.002079	0	0.000601
Santa Clara	2024	MDV	Aggregate	Aggregate	Gasoline	156824.5	4915330	725874.3	0.073555	0	0.30496	0.001269	0	0.001735	0.002	0.01575	0.00138	0	0.001887	0.008	0.03675	370.2473	0	81.24522	0.003533	0	0.07385	0.006301	0	0.032254	0.014431	0	0.358405	0.133918	0.442951	0.315236	0.324744	0.021047	0	0.392407	0.133918	0.442951	0.315236	0.324744	0.809607	0	3.072017	0.003664	0	0.000804
Santa Clara	2024	MDV	Aggregate	Aggregate	Diesel	4279.344	148384.4	20665.8	0.030793	0	0	0.003552	0	0	0.002	0.01575	0.003712	0	0	0.008	0.03675	340.7089	0	0	0.00042	0	0	0.053555	0	0	0.009041	0	0	0	0	0	0.010293	0	0	0	0	0	0	0.1773	0	0	0.003221	0	0
Santa Clara	2024	MDV	Aggregate	Aggregate	Electricity	2041.893	62655.19	10349.93	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	MH	Aggregate	Aggregate	Gasoline	2827.424	26048.95	282.8555	0.319474	0	0.337369	0.001496	0	0.000332	0.003	0.05586	0.001627	0	0.000361	0.012	0.13034	1698.665	0	25.10838	0.011423	0	0.03111	0.021443	0	0.036462	0.047898	0	0.127627	0.075126	1.794574	0.031457	0.088456	0.069892	0	0.139736	0.075126	1.794574	0.031457	0.088456	1.158649	0	2.813821	0.01681	0	0.000248
Santa Clara	2024	MH	Aggregate	Aggregate	Diesel	1087.572	10089.67	108.7572	3.8575	0	0	0.073619	0	0	0.004	0.05586	0.076948	0	0	0.016	0.13034	992.182	0	0	0.004739	0	0	0.155957	0	0	0.102018	0	0	0	0	0	0.116141	0	0	0	0	0	0	0.353157	0	0	0.00938	0	0
Santa Clara	2024	MHDT	Aggregate	Aggregate	Gasoline	1564.857	81219.94	31309.66	0.31759	0.088787	0.357983	0.00128	0	0.000432	0.003	0.05586	0.001392	0	0.000469	0.012	0.13034	1664.466	518.4053	37.21256	0.009834	0.269491	0.03713	0.017321	0.007911	0.029454	0.046731	1.017203	0.195989	0.074177	0.415581	0.016077	0.031122	0.06819	1.484301	0.214584	0.074177	0.415581	0.016077	0.031122	1.055715	15.16855	4.34781	0.016471	0.00513	0.000368
Santa Clara	2024	MHDT	Aggregate	Aggregate	Diesel	9624.848	566389.2	95988.07	1.610171	5.459844	2.136352	0.007492	0.004673	0	0.003	0.05586	0.00783	0.004884	0	0.012	0.13034	997.0565	869.0377	0	0.000527	0.003515	0	0.156723	0.136601	0	0.01135	0.075674	0	0	0	0	0.012921	0.086149	0	0	0	0	0	0	0.114514	2.701556	0	0.00942	0.00821	0
Santa Clara	2024	OBUS	Aggregate	Aggregate	Gasoline	504.7356	23300.26	10098.75	0.360432	0.065159	0.318556	0.00103	0	0.000226	0.003	0.05586	0.00112	0	0.000245	0.012	0.13034	1712.694	370.3334	25.70448	0.010554	0.201432	0.02907	0.019268	0.00573	0.026194	0.04937	0.747749	0.148852	0.027254	0.303972	0.016446	0.036927	0.07204	1.091114	0.162974	0.027254	0.303972	0.016446	0.036927	1.073358	5.783505	3.116445	0.016948	0.003665	0.000254
Santa Clara	2024	OBUS	Aggregate	Aggregate	Diesel	763.9429	53010.14	7005.878	1.952588	8.368625	2.211523	0.009711	0.002619	0	0.003	0.05586	0.01015	0.002738	0	0.012	0.13034	1156.149	1829.903	0	0.000579	0.025071	0	0.181731	0.287635	0	0.01246	0.539782	0	0	0	0	0.014185	0.6145	0	0	0	0	0	0	0.143603	9.166694	0	0.010923	0.017288	0
Santa Clara	2024	SBUS	Aggregate	Aggregate	Gasoline	277.2219	12408.76	1108.888	0.391846	0.925198	0.582393	0.001195	0	0.000512	0.002	0.3192	0.0013	0	0.000557	0.008	0.7448	849.9257	2540.147	47.46214	0.010004	2.441578	0.057304	0.022787	0.088525	0.054796	0.049026	10.62205	0.32698	0.063489	0.424105	0.011364	0.026144	0.071538	15.49967	0.358002	0.063489	0.424105	0.011364	0.026144	1.061031	82.12266	8.250612	0.008411	0.025137	0.00047
Santa Clara	2024	SBUS	Aggregate	Aggregate	Diesel	1011.343	31782.11	11670.76	6.305713	43.19427	0.882346	0.039225	0.043673	0	0.003	0.3192	0.040998	0.045648	0	0.012	0.7448	1127.045	3685.79	0	0.004462	0.012671	0	0.177156	0.579355	0	0.09606	0.272808	0	0	0	0	0.109357	0.310572	0	0	0	0	0	0	0.272311	6.223874	0	0.010648	0.034822	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Gasoline	8.427049	1060.813	33.7082	0.179651	0	0.688867	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.507	0	88.60685	0.007013	0	0.097882	0.017812	0	0.068509	0.022728	0	0.407643	0.01024	0.051815	0.002284	0.005364	0.033164	0	0.446318	0.01024	0.051815	0.002284	0.005364	0.280937	0	8.852622	0.019361	0	0.000877
Santa Clara	2024	UBUS	Aggregate	Aggregate	Diesel	430.6994	46893.42	1722.798	0.802546	0	0	0.005646	0	0	0.008399	0.029403	0.005901	0	0	0.033598	0.068607	1480.079	0	0	0.077245	0	0	0.232648	0	0	0.001104	0	0	0	0	0	0.078834	0	0	0	0	0	0	0.131094	0	0	0.013992	0	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Natural Ga	97.04458	11968.1	388.1783	0.491562	0	0	0.003197	0	0	0.008538	0.028723	0.003341	0	0	0.034153	0.06702	2024.066	0	0	6.451003	0	0	0.412619	0	0	0.092172	0	0	0	0	0	6.583722	0	0	0	0	0	0	50.12428	0	0	0	0	0

Project	**SJ Senior Living**	**CalEEMod EMFAC2017 Emission Factors Input**											**Year**	**2030**
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004148	0.002505	0.003832	0.024231453	0.007098	0	0	0.070082	0
A	CH4_RUNEX	0.000959	0.001671	0.001726	0.001772	0.005195	0.005339	0.001034	0.04518098	0.002197	1.859484	0.319087	0.004404	0.005027
A	CH4_STREX	0.028931	0.035248	0.041821	0.043924	0.009023	0.004811	0.008383	4.34672E-07	0.015222	0.002186	0.24786	0.006338	0.019545
A	CO_IDLEX	0	0	0	0	0.17731	0.131894	0.405402	6.28489984	0.644155	0	0	2.927328	0
A	CO_RUNEX	0.411156	0.540474	0.559142	0.551517	0.468742	0.489111	0.152189	0.405949458	0.262856	14.11073	17.60732	0.374881	0.311691
A	CO_STREX	1.716961	1.849789	2.287973	2.324828	0.890393	0.484256	0.872515	0.006685308	1.577018	0.139137	9.199577	0.858725	1.635194
A	CO2_NBIO_IDLEX	0	0	0	0	8.251826	13.00041	65.09769	930.0496847	97.36242	0	0	337.4754	0
A	CO2_NBIO_RUNEX	213.8884	258.4057	267.3331	322.2663	698.5465	679.813	993.4479	1226.348086	1210.85	1668.671	209.7572	970.5049	1350.267
A	CO2_NBIO_STREX	45.12682	55.17203	57.56738	67.91602	10.09364	6.438033	8.550649	0.051649278	13.46187	1.401901	59.22586	5.059627	15.54123
A	NOX_IDLEX	0	0	0	0	0.045908	0.074209	0.341766	5.199426871	0.431935	0	0	2.710433	0
A	NOX_RUNEX	0.019319	0.033468	0.034489	0.035665	0.299902	0.384329	1.428316	2.517362076	1.448391	0.706433	1.137409	3.086533	1.063099
A	NOX_STREX	0.125333	0.151052	0.168209	0.179169	0.225227	0.124883	1.689216	2.314548745	1.129093	0.015157	0.270173	1.184451	0.23668
A	PM10_IDLEX	0	0	0	0	0.000915	0.001502	0.000162	0.002145897	0.000142	0	0	0.002048	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.061109857	0.13034	0.069383	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009901	0.010844	0.012	0.035621239	0.012	0.033326	0.004	0.010676	0.013189
A	PM10_RUNEX	0.000929	0.00107	0.001025	0.001034	0.007019	0.013839	0.007006	0.023790073	0.007882	0.005116	0.002138	0.021245	0.016043
A	PM10_STREX	0.001275	0.001461	0.00134	0.001344	0.00021	0.000106	0.000112	5.80093E-07	0.000156	1.52E-05	0.002862	6.76E-05	0.000212
A	PM25_IDLEX	0	0	0	0	0.000875	0.001437	0.000155	0.002053066	0.000136	0	0	0.00196	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026189939	0.05586	0.029736	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002475	0.002711	0.003	0.00890531	0.003	0.008332	0.001	0.002669	0.003297
A	PM25_RUNEX	0.000855	0.000984	0.000944	0.000954	0.006671	0.013218	0.006696	0.022760894	0.007526	0.004893	0.001994	0.02031	0.015312
A	PM25_STREX	0.001172	0.001344	0.001232	0.001236	0.000193	9.76E-05	0.000103	5.33374E-07	0.000144	1.4E-05	0.002676	6.22E-05	0.000195
A	ROG_DIURN	0.024903	0.046388	0.048996	0.057349	0.001403	0.000642	0.000289	1.32994E-06	0.001062	6.14E-05	1.786807	0.00087	0.347564
A	ROG_HTSK	0.061657	0.093564	0.089096	0.0981	0.054855	0.024352	0.013852	5.78076E-05	0.015622	0.000814	0.631299	0.008304	0.028392
A	ROG_IDLEX	0	0	0	0	0.01734	0.013466	0.01847	0.422100311	0.050126	0	0	0.322319	0
A	ROG_RESTL	0.022934	0.041206	0.048532	0.056738	0.000772	0.000374	0.000168	7.97633E-07	0.000487	3.58E-05	0.946881	0.000414	0.1401
A	ROG_RUNEX	0.003247	0.0065	0.006553	0.006887	0.072661	0.0982	0.011844	0.024014489	0.016744	0.026969	2.128511	0.060159	0.038911
A	ROG_RUNLS	0.170512	0.364405	0.336782	0.340289	0.429696	0.143744	0.071507	0.000284481	0.181965	0.004928	1.487321	0.053902	0.535482
A	ROG_STREX	0.118715	0.154126	0.182707	0.199251	0.043726	0.022756	0.041407	2.2699E-06	0.076636	0.009261	1.877593	0.036024	0.074231
A	SO2_IDLEX	0	0	0	0	7.99E-05	0.000124	0.000618	0.00865265	0.000924	0	0	0.003219	0
A	SO2_RUNEX	9E-05	0.002567	0.00948	0.002976	0.006812	0.006557	0.00948	0.011212041	0.011649	0.010417	0.002076	0.009288	0.013242
A	SO2_STREX	0	0	8.46E-05	0.000628	9.99E-05	6.37E-05	8.46E-05	5.11111E-07	0.000133	1.39E-05	0.000586	5.01E-05	0.000154
A	TOG_DIURN	0.024903	0.046388	0.048996	0.057349	0.001403	0.000642	0.000289	1.32994E-06	0.001062	6.14E-05	1.786807	0.00087	0.347564
A	TOG_HTSK	0.061657	0.093564	0.089096	0.0981	0.054855	0.024352	0.013852	5.78076E-05	0.015622	0.000814	0.631299	0.008304	0.028392
A	TOG_IDLEX	0	0	0	0	0.02413	0.017772	0.025282	0.485180108	0.063906	0	0	0.463821	0
A	TOG_RESTL	0.022934	0.041206	0.048532	0.056738	0.000772	0.000374	0.000168	7.97633E-07	0.000487	3.58E-05	0.946881	0.000414	0.1401
A	TOG_RUNEX	0.004716	0.009483	0.009524	0.009983	0.08579	0.112949	0.014288	0.071682245	0.021563	1.898202	2.666273	0.071678	0.048331
A	TOG_RUNLS	0.170512	0.364405	0.336782	0.340289	0.429696	0.143744	0.071507	0.000284481	0.181965	0.004928	1.487321	0.053902	0.535482
A	TOG_STREX	0.129977	0.168749	0.200041	0.218155	0.047875	0.024915	0.045336	2.48526E-06	0.083906	0.01014	2.04481	0.039442	0.081274

Project **SJ Senior Living** **CalEEMod EMFAC2017 Fleet Mix Input**

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.595423	0.053963	0.1714	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.00478	0.0009	0.000728

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2030**	**1.0047**	**1.0051**	**1.0037**	**1.0142**	**1.0156**	**1.0702**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	6.64490772	6.44208E-05	846.0095307	0.0007082	132.9513137	0.001289
HHDT	DSL	9431.66014	0.091437677	1177484.801	0.9856235	101453.9057	0.983571
HHDT	NG	400.423733	0.003882012	16329.01039	0.0136683	1561.65256	0.01514
		9838.72878		1194659.821		103148.5096	
LDA	GAS	869969.054	0.199455174	28403709.05	0.9353624	4092414.492	0.938255
LDA	DSL	10023.6311	0.002298088	337674.2133	0.0111199	47693.27274	0.010934
LDA	ELEC	46172.9575	0.010585934	1625145.787	0.0535177	221619.429	0.05081
		926165.643		30366529.05		4361727.194	
LDT1	GAS	88972.3781	0.210143948	2670255.623	0.9702623	412660.2081	0.974663
LDT1	DSL	12.417636	2.93292E-05	352.1646201	0.000128	54.72797689	0.000129
LDT1	ELEC	2180.04354	0.005149047	81488.92574	0.0296098	10672.83699	0.025208
		91164.8393		2752096.714		423387.7731	
LDT2	GAS	281546.851	0.207012788	8446247.278	0.9662385	1307139.072	0.961099
LDT2	DSL	2576.29805	0.001894273	81354.45831	0.0093068	12261.45311	0.009015
LDT2	ELEC	8320.47779	0.006117793	213767.17	0.0244547	40645.17011	0.029885
		292443.626		8741368.906		1360045.695	
LHDT1	GAS	17444.2479	0.039011141	563109.062	0.524693	259893.3012	0.581208
LHDT1	DSL	14887.6067	0.033293641	510107.1807	0.475307	187267.3634	0.418792
		32331.8545	0.072304782	1073216.243		447160.6646	
LHDT2	GAS	2535.29338	0.022078647	81915.35225	0.2890754	37772.09381	0.328939
LHDT2	DSL	6126.0507	0.053348821	201454.8533	0.7109246	77058.01119	0.671061
		8661.34408	0.075427468	283370.2055		114830.105	
MCY	GAS	38839.8704	1	243796.974	1	68862.74135	1
MDV	GAS	173606.03	0.202481545	5113917.766	0.9413395	803848.003	0.93755
MDV	DSL	5652.32289	0.006592462	175214.3444	0.0322524	26820.46473	0.031281
MDV	ELEC	5412.77598	0.006313071	143464.5329	0.0264081	26723.39796	0.031168
		184671.128		5432596.643		857391.8657	
MH	GAS	2781.1835	6.860584351	26082.34767	0.7028599	278.229597	0.686333
MH	DSL	1271.56206	3.136671415	11026.53592	0.2971401	127.1562061	0.313667
		4052.74556		37108.88359		405.385803	
MHDT	GAS	1942.27387	0.0129396	96462.79575	0.1386758	38861.01552	0.258896
MHDT	DSL	11245.4208	0.074917989	599136.6222	0.8613242	111242.0637	0.741104
		13187.6946		695599.4179		150103.0793	
OBUS	GAS	521.244172	0.028488575	22324.56075	0.3033729	10429.05339	0.569999
OBUS	DSL	845.855674	0.046230201	51263.28582	0.6966271	7867.550505	0.430001
		1367.09985		73587.84657		18296.60389	
SBUS	GAS	362.301365	0.028382924	15198.78251	0.3309775	1449.205462	0.113532
SBUS	DSL	980.562908	0.076817934	30722.10855	0.6690225	11315.56001	0.886468
		1342.86427		45920.89106		12764.76547	
UBUS	GAS	8.45001015	0.003929273	1063.703044	0.0177031	33.80004061	0.015717
UBUS	DSL	376.894326	0.175256681	42036.6241	0.6996122	1507.577304	0.701027
UBUS	NG	152.28756	0.070814046	16985.27801	0.2826846	609.1502392	0.283256
		537.631896		60085.60515		2150.527584	

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLE	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2030	HHDT	Aggregate	Aggregate	Gasoline	6.644908	846.0095	132.9513	2.895279	0	0.044486	0.001084	0	0.000414	0.005	0.02646	0.001179	0	0.00045	0.02	0.06174	1677.599	0	40.07141	0.06849	0	0.000337	0.127319	0	0.001575	0.302922	0	0.001761	0.044849	0.220711	0.012382	0.020645	0.442024	0	0.001928	0.044849	0.220711	0.012382	0.020645	28.21474	0	5.186707	0.016601	0	0.000397
Santa Clara	2030	HHDT	Aggregate	Aggregate	Diesel	9431.66	1177485	1014553.9	2.539781	56.05241	2.353151	0.023044	0.021785	0	0.008907	0.026186	0.024086	0.02277	0	0.035627	0.061101	1202.821	10016.29	0	0.001063	0.214358	0	0.189067	1.574421	0	0.022896	4.615071	0	0	0	0	0	0.026066	5.253907	0	0	0	0	0	0	0.238872	67.80499	0	0.011364	0.094629	0
Santa Clara	2030	HHDT	Aggregate	Aggregate	Natural Ga	400.4237	16329.01	1561.653	0.881174	19.09434	0	0.003462	0.015749	0	0.009	0.02646	0.003619	0.016461	0	0.036	0.06174	2899.524	3653.632	0	3.225286	1.19295	0	0.591087	0.744817	0	0.090199	0.028054	0	0	0	0	0	3.341906	1.230036	0	0	0	0	0	0	11.01311	21.88788	0	0	0	0
Santa Clara	2030	LDA	Aggregate	Aggregate	Gasoline	869969.1	28403709	4092414	0.020358	0	0.132956	0.000879	0	0.001249	0.002	0.01575	0.000956	0	0.001359	0.008	0.03675	211.6944	0	44.94162	0.001023	0	0.030835	0.003085	0	0.020493	0.003388	0	0.12606	0.065117	0.180811	0.11416	0.123291	0.004944	0	0.13802	0.065117	0.180811	0.11416	0.123291	0.43107	0	1.801842	0.002095	0	0.000445
Santa Clara	2030	LDA	Aggregate	Aggregate	Diesel	10023.63	337674.2	47693.27	0.01676	0	0	0.001829	0	0	0.002	0.01575	0.001912	0	0	0.008	0.03675	166.1368	0	0	0.000273	0	0	0.026114	0	0	0.005885	0	0	0	0	0	0	0.006699	0	0	0	0	0	0	0.146966	0	0	0.001571	0	0
Santa Clara	2030	LDA	Aggregate	Aggregate	Electricity	46172.96	1625146	221619.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LDT1	Aggregate	Aggregate	Gasoline	88972.38	2670256	412660.2	0.034308	0	0.154254	0.000998	0	0.001379	0.002	0.01575	0.001085	0	0.001499	0.008	0.03675	248.8135	0	52.89319	0.001722	0	0.036164	0.003879	0	0.021779	0.00667	0	0.15755	0.095382	0.371981	0.194977	0.219194	0.009733	0	0.172497	0.095382	0.371981	0.194977	0.219194	0.548445	0	1.868724	0.002462	0	0.000523
Santa Clara	2030	LDT1	Aggregate	Aggregate	Diesel	12.41764	352.1646	54.72798	0.189506	0	0	0.017188	0	0	0.002	0.01575	0.017965	0	0	0.008	0.03675	322.0531	0	0	0.001569	0	0	0.050622	0	0	0.033785	0	0	0	0	0	0	0.038462	0	0	0	0	0	0	0.286183	0	0	0.003045	0	0
Santa Clara	2030	LDT1	Aggregate	Aggregate	Electricity	2180.044	81488.93	10672.84	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LDT2	Aggregate	Aggregate	Gasoline	281546.9	8446247	1307139	0.035247	0	0.174198	0.000925	0	0.001282	0.002	0.01575	0.001006	0	0.001394	0.008	0.03675	226.344	0	55.96845	0.00178	0	0.043514	0.003847	0	0.023481	0.006634	0	0.189401	0.09208	0.348635	0.233116	0.234964	0.00968	0	0.20737	0.09208	0.348635	0.233116	0.234964	0.568541	0	2.344012	0.002537	0	0.000554
Santa Clara	2030	LDT2	Aggregate	Aggregate	Diesel	2576.298	81354.46	12261.45	0.02908	0	0	0.003937	0	0	0.002	0.01575	0.004115	0	0	0.008	0.03675	226.4921	0	0	0.000595	0	0	0.035601	0	0	0.01282	0	0	0	0	0	0	0.014595	0	0	0	0	0	0	0.129762	0	0	0.002141	0	0
Santa Clara	2030	LDT2	Aggregate	Aggregate	Electricity	8320.478	213767.2	40645.17	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LHDT1	Aggregate	Aggregate	Gasoline	17444.25	563109.1	259893.3	0.098098	0.030587	0.387515	0.002081	0	0.000333	0.002	0.03276	0.002264	0	0.000362	0.008	0.07644	897.5407	110.5325	17.36665	0.004317	0.101968	0.015524	0.006844	0.002802	0.033538	0.018245	0.350811	0.075233	0.094381	0.739315	0.019801	0.035959	0.026623	0.511903	0.082371	0.094381	0.739315	0.019801	0.035959	0.368714	3.768698	1.531971	0.008882	0.001094	0.000172
Santa Clara	2030	LHDT1	Aggregate	Aggregate	Diesel	14887.61	510107.2	187267.4	0.522674	1.343027	0	0.011738	0.026289	0	0.003	0.03276	0.012269	0.027477	0	0.012	0.07644	478.8761	118.3357	0	0.006165	0.005098	0	0.075273	0.018601	0	0.13273	0.10976	0	0	0	0	0	0.151104	0.124954	0	0	0	0	0	0	0.579164	0.909745	0	0.004527	0.001119	0
Santa Clara	2030	LHDT2	Aggregate	Aggregate	Gasoline	2535.293	81915.35	37772.09	0.091162	0.030032	0.379653	0.001975	0	0.000297	0.002	0.03822	0.002148	0	0.000323	0.008	0.08918	1021.816	126.3902	19.57212	0.00327	0.10112	0.014626	0.00699	0.00275	0.032936	0.012455	0.344716	0.06918	0.074032	0.436992	0.016932	0.02908	0.018175	0.503009	0.075743	0.074032	0.436992	0.016932	0.02908	0.249204	3.775612	1.472175	0.010112	0.001251	0.000194
Santa Clara	2030	LHDT2	Aggregate	Aggregate	Diesel	6126.051	201454.9	77058.01	0.503536	1.378592	0	0.017789	0.026933	0	0.003	0.03822	0.018593	0.028151	0	0.012	0.08918	540.7481	191.3797	0	0.006181	0.005098	0	0.084998	0.030082	0	0.133066	0.10976	0	0	0	0	0	0.151486	0.124954	0	0	0	0	0	0	0.586662	0.909745	0	0.005112	0.001809	0
Santa Clara	2030	MCY	Aggregate	Aggregate	Gasoline	38839.87	253703.2	77679.74	1.137409	0	0.270173	0.001994	0	0.002676	0.001	0.00504	0.002138	0	0.002862	0.004	0.01176	209.7572	0	59.22586	0.319087	0	0.24786	0.065566	0	0.015364	2.128511	0	1.877593	0.631299	1.487321	0.946881	1.786807	2.666273	0	2.04481	0.631299	1.487321	0.946881	1.786807	17.60732	0	9.199577	0.002076	0	0.000586
Santa Clara	2030	MDV	Aggregate	Aggregate	Gasoline	173606	5113918	803848	0.03715	0	0.190209	0.00093	0	0.001318	0.002	0.01575	0.001012	0	0.001433	0.008	0.03675	309.7804	0	67.68816	0.001872	0	0.04685	0.004005	0	0.024192	0.007071	0	0.21174	0.103941	0.361114	0.278651	0.281249	0.010317	0	0.231829	0.103941	0.361114	0.278651	0.281249	0.571385	0	2.441594	0.003066	0	0.00067
Santa Clara	2030	MDV	Aggregate	Aggregate	Diesel	5652.323	175214.3	26820.46	0.016338	0	0	0.001999	0	0	0.002	0.01575	0.00209	0	0	0.008	0.03675	295.1303	0	0	0.000296	0	0	0.04639	0	0	0.006382	0	0	0	0	0	0	0.007265	0	0	0	0	0	0	0.160558	0	0	0.00279	0	0
Santa Clara	2030	MDV	Aggregate	Aggregate	Electricity	5412.776	143464.5	26723.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	MH	Aggregate	Aggregate	Gasoline	2781.183	26082.35	278.2296	0.161957	0	0.344848	0.001294	0	0.000284	0.003	0.05586	0.001408	0	0.000309	0.012	0.13034	1534.746	0	22.64387	0.005412	0	0.028477	0.014768	0	0.039513	0.01789	0	0.108156	0.041368	0.780207	0.020421	0.050661	0.026105	0	0.118417	0.041368	0.780207	0.020421	0.050661	0.321425	0	2.382509	0.015188	0	0.000224
Santa Clara	2030	MH	Aggregate	Aggregate	Diesel	1271.562	11026.54	127.1562	3.194675	0	0	0.048471	0	0	0.004	0.05586	0.050662	0	0	0.016	0.13034	913.8987	0	0	0.004117	0	0	0.143652	0	0	0.088635	0	0	0	0	0	0	0.100905	0	0	0	0	0	0	0.288665	0	0	0.00864	0	0
Santa Clara	2030	MHDT	Aggregate	Aggregate	Gasoline	1942.274	96462.8	38861.02	0.137179	0.089333	0.328382	0.001276	0	0.000397	0.003	0.05586	0.001388	0	0.000432	0.012	0.13034	1512.526	477.0555	33.02741	0.004329	0.277482	0.032379	0.010371	0.008413	0.029895	0.018098	1.025296	0.159937	0.053505	0.276198	0.013009	0.02236	0.026409	1.49611	0.175111	0.053505	0.276198	0.013009	0.02236	0.365535	15.26266	3.370143	0.014968	0.004721	0.000327
Santa Clara	2030	MHDT	Aggregate	Aggregate	Diesel	11245.42	599136.6	111242.1	1.636194	4.546441	2.164606	0.007568	0.002068	0	0.003	0.05586	0.00791	0.002162	0	0.012	0.13034	909.8747	786.5238	0	0.000503	0.003226	0	0.14302	0.123631	0	0.010837	0.069445	0	0	0	0	0	0.012337	0.079058	0	0	0	0	0	0	0.11784	2.775159	0	0.008596	0.007431	0
Santa Clara	2030	OBUS	Aggregate	Aggregate	Gasoline	521.2442	22324.56	10429.05	0.201397	0.065222	0.308429	0.001191	0	0.000252	0.003	0.05586	0.001295	0	0.000274	0.012	0.13034	1542.791	344.1269	23.61734	0.005871	0.202191	0.026706	0.012891	0.005853	0.026143	0.025703	0.748687	0.134449	0.027407	0.319238	0.017082	0.037276	0.037506	1.092483	0.147204	0.027407	0.319238	0.017082	0.037276	0.529537	5.789149	2.766701	0.015267	0.003405	0.000234
Santa Clara	2030	OBUS	Aggregate	Aggregate	Diesel	845.8557	51263.29	7867.551	1.991442	9.302951	2.216948	0.010285	0.002947	0	0.003	0.05586	0.01075	0.003081	0	0.012	0.13034	1066.293	1893.973	0	0.000596	0.028932	0	0.167606	0.297706	0	0.012842	0.6229	0	0	0	0	0	0.01462	0.709124	0	0	0	0	0	0	0.14672	10.36618	0	0.010074	0.017893	0
Santa Clara	2030	SBUS	Aggregate	Aggregate	Gasoline	362.3014	15198.78	1449.205	0.285961	0.92653	0.616868	0.001215	0	0.000547	0.002	0.3192	0.001322	0	0.000595	0.008	0.7448	803.9675	2414.339	44.56576	0.00626	2.435971	0.055823	0.018735	0.089714	0.057177	0.030067	10.64152	0.317303	0.073145	0.474779	0.014584	0.030637	0.043873	15.52808	0.347407	0.073145	0.474779	0.014584	0.030637	0.649967	82.24088	7.563743	0.007956	0.023892	0.000441
Santa Clara	2030	SBUS	Aggregate	Aggregate	Diesel	980.5629	30722.11	11315.56	4.472027	34.94152	1.257143	0.029756	0.025511	0	0.003	0.3192	0.031102	0.026664	0	0.012	0.7448	1052.894	3501.127	0	0.003486	0.012263	0	0.1655	0.550328	0	0.075046	0.264022	0	0	0	0	0	0.085434	0.300569	0	0	0	0	0	0	0.238791	7.720739	0	0.009947	0.033077	0
Santa Clara	2030	UBUS	Aggregate	Aggregate	Gasoline	8.45001	1063.703	33.80004	0.336697	0	0.964336	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.157	0	89.19596	0.006892	0	0.139066	0.027885	0	0.079916	0.022728	0	0.589249	0.05182	0.313542	0.009109	0.015639	0.033164	0	0.645153	0.05182	0.313542	0.009109	0.015639	0.405122	0	8.852622	0.019358	0	0.000883
Santa Clara	2030	UBUS	Aggregate	Aggregate	Diesel	376.8943	42036.62	1507.577	0.804174	0	0	0.005656	0	0	0.008428	0.029265	0.005912	0	0	0.033371	0.068284	1523.264	0	0	0.077448	0	0	0.239436	0	0	0.001107	0	0	0	0	0	0	0.079041	0	0	0	0	0	0	0.131472	0	0	0.0144	0	0
Santa Clara	2030	UBUS	Aggregate	Aggregate	Natural Ga	152.2876	16985.28	609.1502	0.487691	0	0	0.003174	0	0	0.008428	0.029265	0.003317	0	0	0.033371	0.068284	2010.534	0	0	6.385838	0	0	0.40986	0	0	0.091241	0	0	0	0	0	0	6.517216	0	0	0	0	0	0	49.56612	0	0	0	0	0

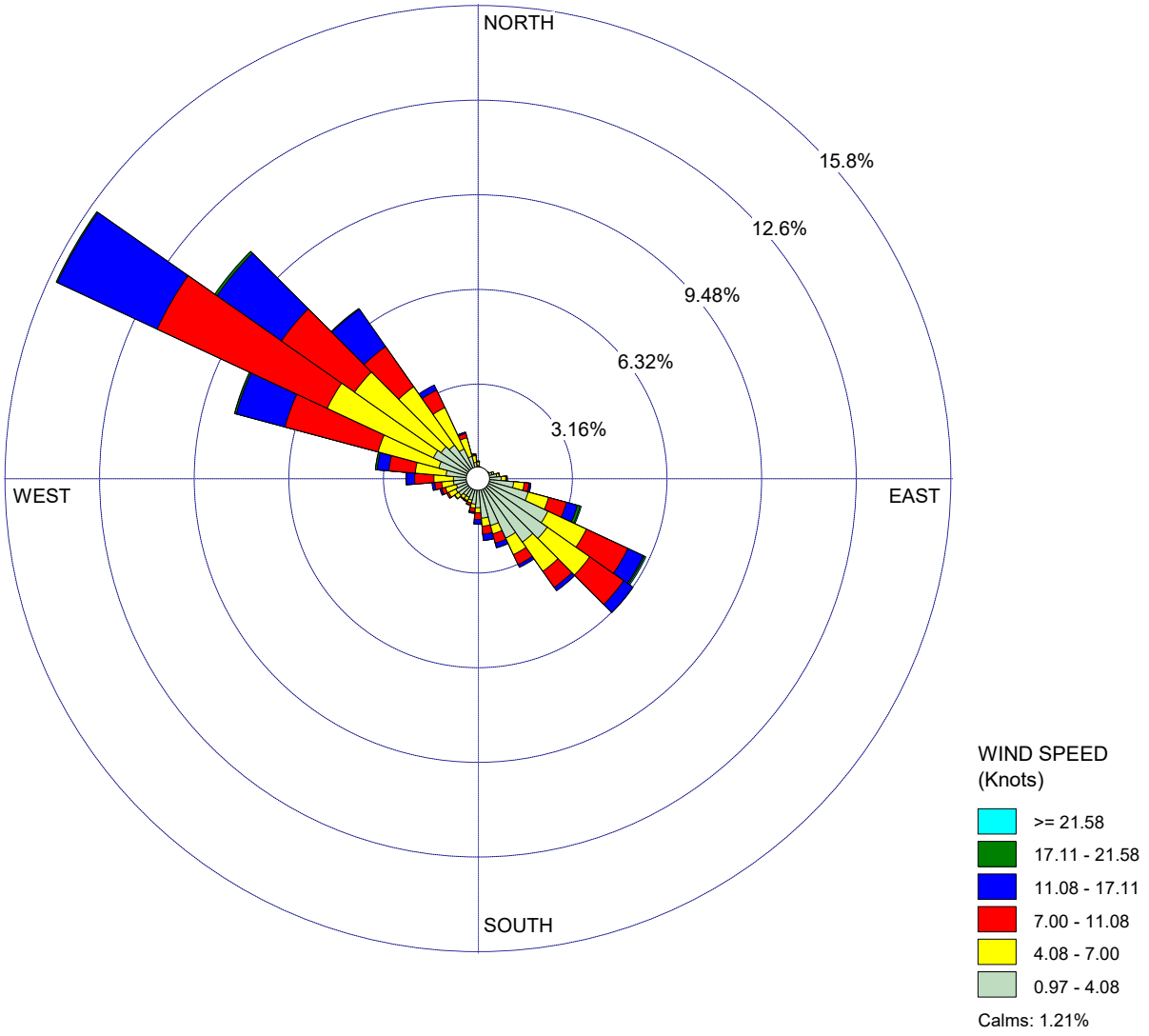
Attachment 4: Project Construction and Operation Dispersion Modeling Inputs and Risk Calculations

WIND ROSE PLOT:

San Jose International Airport
2013-2017 Meteorological Data Prepared by BAAQMD

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2013 - 00:00 **End Date: 12/31/2017 - 23:59**	MODELER:	
	CALM WINDS: **1.21%**	TOTAL COUNT: **43766 hrs.**	
	AVG. WIND SPEED: **6.21 Knots**	DATE: **8/17/2020**	PROJECT NO.:

CONSTRUCTION

San Jose Senior Living, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Emissions Model Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2021	Construction	0.0161	DPM	32.1	0.00880	1.11E-03	14,209	**7.80E-08**
2022	Construction	0.0558	DPM	111.6	0.03058	3.85E-03	14,209	**2.71E-07**
2023	Construction	0.0201	DPM	40.3	0.01104	1.39E-03	14,209	**9.79E-08**
Total		***0.0920***		***184***	***0.050***	***0.006***		

Construction Hours

hr/day =	10	(7am - 5pm)
days/yr =	365	
hours/year =	3650	

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

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)	PM2.5 Emission Rate $g/s/m^2$
2021	Construction	FUG	0.0264	52.9	0.01448	1.83E-03	14,209	**1.28E-07**
2022	Construction	FUG	0.0022	4.5	0.00123	1.55E-04	14,209	**1.09E-08**
2023	Construction	FUG	0.0006	1.2	0.00032	4.03E-05	14,209	**2.84E-09**
Total			***0.0293***	***59***	***0.016***	***0.002***		

Construction Hours

hr/day =	10	(7am - 5pm)
days/yr =	365	
hours/year =	3650	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Emissions Model Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2021	Construction	0.0022	DPM	4.4	0.00122	1.53E-04	14,209	**1.08E-08**
2022	Construction	0.0075	DPM	14.9	0.00410	5.16E-04	14,209	**3.63E-08**
2023	Construction	0.0026	DPM	5.2	0.00143	1.80E-04	14,209	**1.26E-08**
Total		***0.0123***		***25***	***0.007***	***0.001***		

Construction Hours

hr/day =	10	(7am - 5pm)
days/yr =	365	
hours/year =	3650	

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

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2021	Construction	FUG	0.0067	13.3	0.00365	4.60E-04	14,209	**3.24E-08**
2022	Construction	FUG	0.0022	4.5	0.00123	1.55E-04	14,209	**1.09E-08**
2023	Construction	FUG	0.0006	1.2	0.00032	4.03E-05	14,209	**2.84E-09**
Total			***0.0095***	***19***	***0.005***	***0.001***		

Construction Hours

hr/day =	10	(7am - 5pm)
days/yr =	365	
hours/year =	3650	

DPM						
Unmitigated DPM	DPM EMFAC2017	Unmitigated Emissions		Mitigated DPM	DPM EMFAC2017	Mitigated Emissions
0.015	0.002	0.016		0.001	0.002	0.002
0.052	0.003	0.056		0.004	0.003	0.007
0.019	0.001	0.020		0.002	0.001	0.003
Fugitive PM2.5						
Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2017	Unmitigated Emissions		Mitigated Fug PM2.5	EMFAC2017	Mitigated Emissions
0.026	0.001	0.026		0.006	0.001	0.007
0.000	0.002	0.002		0.000	0.002	0.002
0.000	0.001	0.001		0.000	0.001	0.001

San Jose Senior Living, San Jose, CA
Construction Health Impacts Summary

Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2021	0.0192	0.0214	3.42	0.06	0.000	0.04
2022	0.0685	0.0792	11.26	0.20	0.014	0.15
2023	0.0250	0.0294	0.65	0.07	0.005	0.05
Total	-	-	**15.3**	**0.3**	-	-
Maximum	0.0685	0.0792	**-**	**-**	**0.014**	**0.15**

Maximum Impacts at Construction MEI 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): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2021	0.0030	0.0102	0.54	0.00	0.001	0.01
2022	0.0397	0.0089	6.53	0.04	0.008	0.05
2023	0.0171	0.0026	0.44	0.02	0.003	0.02
Total	-	-	**7.5**	**0.1**	-	-
Maximum	0.0397	0.0102	**-**	**-**	**0.008**	**0.05**

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated Emissions
Impacts at Off-Site Receptors - 5 feet

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		
					Age	Infant/Child	Modeled		Age	Adult			
Exposure	Exposure Duration		DPM Conc (ug/m3)		Sensitivity	Cancer Risk	DPM Conc (ug/m3)		Sensitivity	Cancer Risk	Hazard	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	Index	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2021	0.0192	10	0.27	2021	0.0192	-	-			
1	1	0 - 1	2021	0.0192	10	3.15	2021	0.0192	1	0.06	0.000	0.0214	0.041
2	1	1 - 2	2022	0.0685	10	11.26	2022	0.0685	1	0.20	0.014	0.0792	0.148
3	1	2 - 3	2023	0.0250	3	0.65	2023	0.0250	1	0.07	0.005	0.0294	0.054
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00	**0.014**	**0.079**	**0.148**
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						**15.32**				**0.32**			

* Third trimester of pregnancy

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Mitigated Emissions
Impacts at Off-Site Receptors - 5 feet

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		
					Age	Infant/Child	Modeled		Age	Adult			
Exposure	Exposure Duration		DPM Conc (ug/m3)		Sensitivity	Cancer Risk	DPM Conc (ug/m3)		Sensitivity	Cancer Risk	Hazard	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	Index	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2021	0.0030	10	0.04	2021	0.0030	-	-			
1	1	0 - 1	2021	0.0030	10	0.49	2021	0.0030	1	0.01	0.001	0.0102	0.013
2	1	1 - 2	2022	0.0397	10	6.53	2022	0.0397	1	0.11	0.008	0.0089	0.049
3	1	2 - 3	2023	0.0171	3	0.44	2023	0.0171	1	0.05	0.003	0.0026	0.020
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00	**0.008**	**0.010**	**0.049**
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						**7.50**				**0.17**			

* Third trimester of pregnancy

San Jose Senior Living - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Bright Explorers Preschool and Daycare - 1.0 meters - Infant Exposure

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

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

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

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	250	250	250
AT =	70	70	70
SAF =	3.63	3.63	1.00

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Child - Exposure Information				Maximum		
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
1	1	2021	0.0007	10	0.31	0.0001	0.0006	0.0013
2	1	2022	0.0024	10	1.11	0.0005	0.0023	0.0046
3	1	2023	0.0009	10	0.40	0.0002	0.0008	0.0017
				TOTAL	**1.82**	**0.0005**	**0.002**	**0.005**

* Daycare and Preschool assumed to include infants and children under the age of 5

San Jose Senior Living San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Calvary Christian Academy, School - 1.0 meters - Child Exposure

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

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

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

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.63	1.00

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Child - Exposure Information				Maximum		
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	Annual	Age* Sensitivit Factor	Child Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
1	1	2021	0.0041	3	0.18	0.0008	0.0042	0.0083
2	1	2022	0.0147	3	0.64	0.0029	0.0156	0.0303
3	1	2023	0.0054	3	0.24	0.0011	0.0058	0.0112
				TOTAL	**1.06**	**0.0029**	**0.016**	**0.030**

* Children assumed to be from 5 to 13 years of age

OPERATION

San Jose Senior Living, San Jose CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors - 5 Feet
Impact at Project MEI (26-year Exposure)

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

	Infant/Child			Adult
Age --> / Parameter	3rd Trimester	0 - 2	2 - 16	16 - 30
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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2021	0.0000	10	0.00
1	1	0 - 1	2021	0.0000	10	0.00
2	1	1 - 2	2022	0.0000	10	0.00
3	1	2 - 3	2023	0.0000	3	0.0000
4	1	3 - 4	2024	0.00004	3	0.0010
5	1	4 - 5	2025	0.00004	3	0.0010
6	1	5 - 6	2026	0.00004	3	0.0010
7	1	6 - 7	2027	0.00004	3	0.0010
8	1	7 - 8	2028	0.00004	3	0.0010
9	1	8 - 9	2029	0.00004	3	0.0010
10	1	9 - 10	2030	0.00004	3	0.0010
11	1	10 - 11	2031	0.00004	3	0.0010
12	1	11 - 12	2032	0.00004	3	0.0010
13	1	12 - 13	2033	0.00004	3	0.0010
14	1	13 - 14	2034	0.00004	3	0.0010
15	1	14 - 15	2035	0.00004	3	0.0010
16	1	15 - 16	2036	0.00004	3	0.0010
17	1	16-17	2037	0.00004	1	0.0001
18	1	17-18	2038	0.00004	1	0.0001
19	1	18-19	2039	0.00004	1	0.0001
20	1	19-20	2040	0.00004	1	0.0001
21	1	20-21	2041	0.00004	1	0.0001
22	1	21-22	2042	0.00004	1	0.0001
23	1	22-23	2043	0.00004	1	0.0001
24	1	23-24	2044	0.00004	1	0.0001
25	1	24-25	2045	0.00004	1	0.0001
26	1	25-26	2046	0.00004	1	0.0001
27	1	26-27	2047	0.00004	1	0.0001
28	1	27-28	2048	0.00004	1	0.0001
29	1	28-29	2049	0.00004	1	0.0001
30	1	29-30	2050	0.00004	1	0.0001
Total Increased Cancer Risk						**0.02**

Maximum	
Hazard Index	Total PM2.5
0.00001	0.00004

* Third trimester of pregnancy

San Jose Senior Living - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Bright Explorers Preschool and Daycare - 1.0 meters - Child Exposure

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

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

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

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	250	250
AT =	70	70	70
SAF =	3.63	3.63	1.00

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)	Maximum Hazard Index	Maximum Total PM2.5
4	1	2021	0.00003	3	0.002	0.0000	0.00003
5	1	2022	0.00003	3	0.002	0.0000	0.00003
				TOTAL	**0.004**	**0.0000**	**0.000**

* Daycare and Preschool assumed to include infants and children under the age of 5

San Jose Senior Living San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Calvary Christian Academy, School - 1.0 meters - Child Exposure

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

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

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

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.63	1.00

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)
1	1	2021	0.0000	3	0.00
2	1	2022	0.0000	3	0.00
3	1	2023	0.0000	3	0.00
4	1	2024	0.0002	3	0.01
5	1	2025	0.0002	3	0.01
6	1	2026	0.0002	3	0.01
7	1	2027	0.0002	3	0.01
8	1	2028	0.0002	3	0.01
9	1	2029	0.0002	3	0.01
10	1	2030	0.0002	3	0.01
11	1	2031	0.0002	3	0.01
12	1	2032	0.0002	3	0.01
13	1	2033	0.0002	3	0.01
				TOTAL	**0.07**

Maximum Hazard Index	Maximum Total PM2.5
0.00003	0.0002

* Children assumed to be from 5 to 13 years of age

Attachment 5: Cumulative Community Risk from TAC Sources

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 4,890,903.22 ft²

Feb 26 2020 14:42:12 Pacific Standard Time

Screening for 20-039 SRM San Jose Assisted Living

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	1	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	109813	Capitol Nissan	1120 W Capitol Ave	San Jose	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	95136	Santa Clara	0.061	0.000	*No Data*	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.

Step 1:
Enter Facility Data

Plant Name	**Capitol Nissan**
Plant No.	**109813**

Step 4:
Specify Source Type

Does facility have only diesel backup generators?	**no**
Is this analysis for a gas station?	**Yes**

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 2:
Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	**70**

Step 5:
Read Estimates

Total Cancer Risk	**0.063**	per 1,000,000
Total Chronic Hazard	**0.000**	
Total PM2.5 Concentration	**0.000**	µg/m^3

Step 3:
Enter Emissions Data

Chemical Name	CAS No.	Rate	Risk	Hazard	Concentration
	(dashes removed)	(lb/day)	(# / 1,000,000)	(index)	(µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related compr	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			
5-Nitroacenaphthene	602879	0.00E+00			
6-Nitrochrysene	7496028	0.00E+00			
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00			
7H-dibenzo(c,g)carbazole	194592	0.00E+00			
Acetaldehyde	75070	0.00E+00			
Acetamide	60355	0.00E+00			
Acrolein	107028	0.00E+00			
Acrylamide	79061	0.00E+00			
Acrylic Acid	79107	0.00E+00			
Acrylonitrile	107131	0.00E+00			
Allyl chloride	107051	0.00E+00			
Ammonia	7664417	0.00E+00			
Aniline	62533	0.00E+00			
Arsenic	7440382	0.00E+00			
Arsine	7784421	0.00E+00			
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00			
Benz(a)anthracene	56553	0.00E+00			
Benzene	71432	2.84E-03	3.63E-01	1.79E-03	
Benzidine	92875	0.00E+00			
Benzo(a)pyrene	50328	0.00E+00			
Benzo(b)fluoranthene	205992	0.00E+00			
Benzo(j)fluoranthene	205823	0.00E+00			
Benzo(k)fluoranthene	207089	0.00E+00			
Benzyl Chloride	100447	0.00E+00			
Beryllium	7440417	0.00E+00			
Bis(2-chloroethyl) Ether	111444	0.00E+00			
Bis(2-chloromethyl) Ether	542881	0.00E+00			
Cadmium	7440439	0.00E+00			
Caprolactam	105602	0.00E+00			
Carbon Disulfide	75150	0.00E+00			
Carbon Monoxide	630080	0.00E+00			
Carbon Tetrachloride	56235	0.00E+00			
Carbonyl Sulfide	463581	0.00E+00			
Chlorinated paraffins (Avg. chain length C12; approx. 6(	108171262	0.00E+00			
Chlorine	7782505	0.00E+00			
Chlorine Dioxide	10049044	0.00E+00			
Chlorite	7758192	0.00E+00			
Chlorobenzene	108907	0.00E+00			
Chlorodibromomethane	124481	0.00E+00			
Chloroethane (Ethyl Chloride)	75003	0.00E+00			
Chloroform	67663	0.00E+00			
Chloropicrin	76062	0.00E+00			
Chromic Trioxide	1333820	0.00E+00			
Chromium-hexavalent	18540299	0.00E+00			
Barium chromate2	10294403	0.00E+00			
Calcium chromate2	13765190	0.00E+00			
Lead chromate2	7758976	0.00E+00			
Sodium dichromate2	10588019	0.00E+00			
Strontium chromate2	7789062	0.00E+00			
CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00			

	Chrysene	218019	0.00E+00					
	Copper	7440508	0.00E+00					
	Copper and Copper Compounds	7440508	0.00E+00					
	Cresol Mixtures	1319773	0.00E+00					
	Cupferron	135206	0.00E+00					
	Cyanide	57125	0.00E+00					
	Di(2-ethylhexyl)phthalate	117817	0.00E+00					
	Dibenz(a-h)acridine	226368	0.00E+00					
	Dibenz(a-h)anthracene	53703	0.00E+00					
	Dibenz(a-j)acridine	224420	0.00E+00					
	Dibenzo(a-e)pyrene	192654	0.00E+00					
	Dibenzo(a-h)pyrene	189640	0.00E+00					
	Dibenzo(a-i)pyrene	189559	0.00E+00					
	Dibenzo(a-l)pyrene	191300	0.00E+00					
	Diesel Exhaust Particulate	85105	0.00E+00					
	Diethanolamine	111422	0.00E+00					
	Dimethylformamide	68122	0.00E+00					
	Direct Black 38 (Technical Grade)	1937377	0.00E+00					
	Direct Blue 6 (Technical Grade)	2602462	0.00E+00					
	Direct Brown 95 (Technical Grade)	16071866	0.00E+00					
	Epichlorohydrin	106898	0.00E+00					
	Ethylbenzene	100414	4.05E-03	4.51E-02	3.83E-06			
	Ethylene Glycol	107211	0.00E+00					
	Ethylene Glycol Monobutyl Ether	111762	0.00E+00					
	Ethylene Glycol Monoethyl Ether	110805	0.00E+00					
	Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00					
	Ethylene Glycol Monomethyl Ether	109864	0.00E+00					
	Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00					
	Ethylene Oxide	75218	0.00E+00					
	Ethylene Thiourea	96457	0.00E+00					
	Fluorides	1101	0.00E+00					
	Formaldehyde (gas)	50000	0.00E+00					
	Glutaraldehyde	111308	0.00E+00					
	Hexachlorobenzene	118741	0.00E+00					
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00					
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00					
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00					
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00					
	Hydrazine	302012	0.00E+00					
	Hydrogen Chloride	7647010	0.00E+00					
	Hydrogen Cyanide	74908	0.00E+00					
	Hydrogen Fluoride	7664393	0.00E+00					
	Hydrogen Selenide	7783075	0.00E+00					
	Hydrogen Sulfide	7783064	0.00E+00					
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00					
	Isophorone	78591	0.00E+00					
	Isopropyl Alcohol	67630	0.00E+00					
	Lead Acetate	301042	0.00E+00					
	Lead and Lead Compounds	7439921	0.00E+00					
	Lead Phosphate	7446277	0.00E+00					
	Lead Subacetate	1335326	0.00E+00					
	m-CRESOL	108394	0.00E+00					
	m-XYLENE	108383	0.00E+00					
	Maleic Anhydride	108316	0.00E+00					
	Manganese & Manganese Compounds	7439965	0.00E+00					
	Mercury (Inorganic)	7439976	0.00E+00					
	Mercuric chloride	7487947	0.00E+00					
	Methanol	67561	0.00E+00					
	Methyl Bromide	74839	0.00E+00					
	Methyl Ethyl Ketone	78933	0.00E+00					
	Methyl Isocyanate	624839	0.00E+00					
	Methyl Tertiary Butyl Ether	1634044	0.00E+00					
	Methylene Chloride (Dichloromethane)	75092	0.00E+00					
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00					
	Michlers Ketone	90948	0.00E+00					
	n-Hexane	110543	1.85E-02		4.98E-06			
	n-Nitroso-n-methylethylamine	10595956	0.00E+00					
	n-Nitrosodi-n-Butylamine	924163	0.00E+00					
	n-Nitrosodi-n-Propylamine	621647	0.00E+00					
	n-Nitrosodiethylamine	55185	0.00E+00					
	n-Nitrosodimethylamine	62759	0.00E+00					
	n-Nitrosodiphenylamine	86306	0.00E+00					
	n-Nitrosomorpholine	59892	0.00E+00					
	n-Nitrosopiperidine	100754	0.00E+00					
	n-Nitrosopyrrolidine	930552	0.00E+00					
	Naphthalene	91203	0.00E+00					
	Nickel and Nickel Compounds	7440020	0.00E+00					
	Nickel acetate	373024	0.00E+00					
	Nickel carbonate	3333673	0.00E+00					
	Nickel carbonyl	13463393	0.00E+00					
	Nickel hydroxide	12054487	0.00E+00					
	Nickelocene	1271289	0.00E+00					
	Nickel Oxide	1313991	0.00E+00					
	Nickel Refinery Dust	1146	0.00E+00					
	Nickel Subsulfide	12035722	0.00E+00					
	Nitric Acid	7697372	0.00E+00					
	Nitrogen Dioxide	10102440	0.00E+00					
	o-CRESOL	95487	0.00E+00					
	o-XYLENE	95476	0.00E+00					
	Oleum	8014957	0.00E+00					
	Ozone	10028156	0.00E+00					
	p-Chloro-o-toluidine	95692	0.00E+00					
	p-Cresidine	120718	0.00E+00					
	p-CRESOL	106445	0.00E+00					
	p-Nitrosodiphenylamine	156105	0.00E+00					
	p-XYLENE	106423	0.00E+00					
	Pentachlorophenol	87865	0.00E+00					
	Perchloroethylene	127184	0.00E+00					
	Phenol	108952	0.00E+00					
	Phosgene	75445	0.00E+00					
	Phosphine	7803512	0.00E+00					
	Phosphoric Acid	7664382	0.00E+00					
	Phthalic Anhydride	85449	0.00E+00					
	Polychlorinated Biphenyls	1336363	0.00E+00					
	Potassium Bromate	7758012	0.00E+00					
	Propylene	115071	0.00E+00					
	Propylene Glycol Monomethyl Ether	107982	0.00E+00					
	Propylene oxide	75569	0.00E+00					
	Selenium	7782492	0.00E+00					
	Selenium sulfide	7446346	0.00E+00					
	Silica (crystalline, respirable)	7631869	0.00E+00					
	Sodium hydroxide	1310732	0.00E+00					
	Styrene	100425	0.00E+00					
	Sulfates	9960	0.00E+00					
	Sulfur Dioxide	7446095	0.00E+00					
	Sulfuric Acid	7664939	0.00E+00					
	Sulfur Trioxide	7446719	0.00E+00					
	Tertiary-butyl acetate	540885	0.00E+00					
	Tetrachloroethylene	127184	0.00E+00					
	Thioacetamide	62555	0.00E+00					
	Toluene	108883	2.72E-02		1.71E-04			
	Toluene Diisocyanates	26471625	0.00E+00					
	Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00					
	Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00					
	Trichloroethylene	79016	0.00E+00					
	Triethylamine	121448	0.00E+00					
	Urethane	51796	0.00E+00					
	Vanadium pentoxide	1314621	0.00E+00					

Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	2.27E-02	6.13E-05		
Vanadium	7440622	0.00E+00			
TOTAL UNADJUSTED Risk Values			**0.408**	**0.002**	**0.000**

Gasoline Dispensing Facility (GDF) Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and chronic hazard index found in the District's Stationary Source Screening Analysis Tool for GDF's, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Gas Station

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
5	16.4	1.000		0.0000
10	32.8	1.000		0.0000
15	49.2	1.000		0.0000
20	65.6	1.000		0.0000
25	82.0	0.728		0.0000
30	98.4	0.559		0.0000
35	114.8	0.445		0.0000
40	131.2	0.365		0.0000
45	147.6	0.305		0.0000
50	164.0	0.260		0.0000
55	180.4	0.225		0.0000
60	196.9	0.197		0.0000
65	213.3	0.174		0.0000
70	229.7	0.155		0.0000
75	246.1	0.139		0.0000
80	262.5	0.126		0.0000
85	278.9	0.114		0.0000
90	295.3	0.104		0.0000
95	311.7	0.096		0.0000
100	328.1	0.088		0.0000
105	344.5	0.082		0.0000
110	360.9	0.076		0.0000
115	377.3	0.071		0.0000
120	393.7	0.066		0.0000
125	410.1	0.062		0.0000
130	426.5	0.058		0.0000
135	442.9	0.055		0.0000
140	459.3	0.052		0.0000
145	475.7	0.049		0.0000
150	492.1	0.046		0.0000
155	508.5	0.044		0.0000
160	524.9	0.042		0.0000
165	541.3	0.040		0.0000
170	557.7	0.038		0.0000
175	574.1	0.036		0.0000
180	590.6	0.034		0.0000
185	607.0	0.033		0.0000
190	623.4	0.031		0.0000
195	639.8	0.030		0.0000
200	656.2	0.029		0.0000
205	672.6	0.028		0.0000
210	689.0	0.027		0.0000
215	705.4	0.026		0.0000
220	721.8	0.025		0.0000
225	738.2	0.024		0.0000
230	754.6	0.023		0.0000
235	771.0	0.022		0.0000
240	787.4	0.022		0.0000
245	803.8	0.021		0.0000
250	820.2	0.020		0.0000
255	836.6	0.020		0.0000
260	853.0	0.019		0.0000
265	869.4	0.018		0.0000
270	885.8	0.018		0.0000
275	902.2	0.017		0.0000
280	918.6	0.017		0.0000
285	935.0	0.016		0.0000
290	951.4	0.016		0.0000
295	967.8	0.015		0.0000
300	984.3	0.015		0.0000

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and $PM_{2.5}$ concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	1.000		0		0
15	49.2	1.000		0		0
20	65.6	1.000		0		0
25	82.0	0.85		0		0
30	98.4	0.73		0		0
35	114.8	0.64		0		0
40	131.2	0.58		0		0
50	164.0	0.5		0		0
60	196.9	0.41		0		0
70	229.7	0.31		0		0
80	262.5	0.28		0		0
90	295.3	0.25		0		0
100	328.1	0.22		0		0
110	360.9	0.18		0		0
120	393.7	0.16		0		0
130	426.5	0.15		0		0
140	459.3	0.14		0		0
150	492.1	0.12		0		0
160	524.9	0.1		0		0
180	590.6	0.09		0		0
200	656.2	0.08		0		0
220	721.8	0.07		0		0
240	787.4	0.06		0		0
260	853.0	0.05		0		0
280	918.6	0.04		0		0

Generic Distance Multiplier Tool: This distance multiplier tool refines the screening values to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Generic Case

Distance (meters)	Distance (feet)	Multiplier
0	0.0	1.000
5	16.4	1.000
10	32.8	0.883
15	49.2	0.855
20	65.6	0.827
25	82.0	0.801
30	98.4	0.775
35	114.8	0.750
40	131.2	0.726
45	147.6	0.702
50	164.0	0.679
55	180.4	0.658
60	196.9	0.636
65	213.3	0.616
70	229.7	0.596
75	246.1	0.577
80	262.5	0.558
85	278.9	0.540
90	295.3	0.523
95	311.7	0.506
100	328.1	0.489
105	344.5	0.474
110	360.9	0.458
115	377.3	0.444
120	393.7	0.429
125	410.1	0.415
130	426.5	0.402
135	442.9	0.389
140	459.3	0.376
145	475.7	0.364
150	492.1	0.353
155	508.5	0.341
160	524.9	0.330
165	541.3	0.319
170	557.7	0.309
175	574.1	0.299
180	590.6	0.290
185	607.0	0.280
190	623.4	0.271
195	639.8	0.262
200	656.2	0.254
205	672.6	0.246
210	689.0	0.238
215	705.4	0.230
220	721.8	0.223
225	738.2	0.216
230	754.6	0.209
235	771.0	0.202
240	787.4	0.195
245	803.8	0.189
250	820.2	0.183
255	836.6	0.177
260	853.0	0.171
265	869.4	0.166
270	885.8	0.160
275	902.2	0.155
280	918.6	0.150
285	935.0	0.145
290	951.4	0.141
295	967.8	0.136
300	984.3	0.132

		(µg/m3)	(mg/kg-day)-1
Chemical Name	CAS Number	Chronic multi-pathway inhalation REL	Inhalation Multi-pathway slope factor
1,1,1-Trichloroethane	71556	1000	0
1,1,2,2-Tetrachloroethane	79345	0	0.2
1,1,2-Trichloroethane	79005	0	0.057
1,1-Dichloroethane	75343	0	0.0057
1,1-Dichloroethylene	75354	70	0
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0	1950
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0	1950
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0	65000
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0	65000
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.000000076	650000
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0	650000
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0	650000
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0	650000
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0	650000
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0	650000
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.000000076	6500000
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0	195000
1,2-Dibromo-3-chloropropane	96128	0	7
1,2-Dibromoethane	106934	0.8	0.25
1,2-Dichloroethane	107062	400	0.072
1,2-Epoxybutane	106887	20	0
1,3-Butadiene	106990	2	0.6
1,3-Propane sultone	1120714	0	2.4
1,4-Dichlorobenzene	106467	800	0.04
1,4-Dioxane	123911	3000	0.027
1,6-Dinitropyrene	42397648	0	860
1,8-Dinitropyrene	42397659	0	86
1-Nitropyrene	5522430	0	8.6
2',3,4,4',5-PeCB	65510443	0	195
2,3',4,4',5,5'-HxCB	52663726	0	195
2,3',4,4',5-PeCB	31508006	0	195
2,3,3',4,4',5'-HxCB	69782907	0	195
2,3,3',4,4',5,5'-HpCB	39635319	0	195
2,3,3',4,4',5-HxCB	38380084	0	195
2,3,3',4,4'-PeCB	32598144	0	195
2,3,4,4',5-PeCB	74472370	0	195
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0	650000
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0	19500000
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related compound	1746016	0.000000076	650000
2,3,7,8-Tetrachlorodibenzofuran	51207319	0	650000

2,4,6-Trichlorophenol	88062	0	0.07
2,4-Diaminoanisole	615054	0	0.023
2,4-Diaminotoluene	95807	0	4
2,4-Dinitrotoluene	121142	0	0.31
2-Aminoanthraquinone	117793	0	0.033
2-Nitrofluorene	607578	0	0.86
3,3',4,4',5,5'-HxCB	32774166	0	195000
3,3',4,4',5-PeCB	57465288	0	650000
3,3',4,4'-TCB	32598133	0	650
3,3-Dichlorobenzidine	91941	0	1.2
3,4,4'5-TCB	70362504	0	1950
3-Methylcholanthrene	56495	2	490.2
4,4-Methylene bis(2-chloroaniline)	101144	0	1.5
4,4-Methylenedianiline	101779	20	11
4-Chloro-ortho-phenylenediamine	95830	0	0.016
4-Dimethylaminoazobenzene	60117	0	4.6
4-Nitropyrene	57835924	0	8.6
5-Methylchrysene	3697243	0	86
5-Nitroacenaphthene	602879	0	2.58
6-Nitrochrysene	7496028	0	860
7,12-Dimethylbenz(a)anthracene	57976	0	5504
7H-dibenzo(c,g)carbazole	194592	0	86
Acetaldehyde	75070	140	0.01
Acetamide	60355	0	0.07
Acrolein	107028	0.35	0
Acrylamide	79061	0	4.5
Acrylic Acid	79107	0	0
Acrylonitrile	107131	5	1
Allyl chloride	107051	0	0.021
Ammonia	7664417	200	0
Aniline	62533	0	0.0057
Arsenic	7440382	0.00014	180
Arsine	7784421	0.014	0
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0	220
Benz(a)anthracene	56553	0	0.39
Benzene	71432	3	0.1
Benzidine	92875	0	500
Benzo(a)pyrene	50328	0	86
Benzo(b)fluoranthene	205992	0	8.6
Benzo(j)fluoranthene	205823	0	8.6
Benzo(k)fluoranthene	207089	0	8.6
Benzyl Chloride	100447	0	0.17
Beryllium	7440417	0.007	8.4
Bis(2-chloroethyl) Ether	111444	0	2.5
Bis(2-chloromethyl) Ether	542881	0	46
Cadmium	7440439	0.01	15
Caprolactam	105602	2.2	0

Carbon Disulfide	75150	800	0
Carbon Monoxide	630080	0	0
Carbon Tetrachloride	56235	40	0.15
Carbonyl Sulfide	463581		
Chlorinated paraffins (Avg. chain length C12; approx. 60 per	108171262	0	0.089
Chlorine	7782505	0.2	0
Chlorine Dioxide	10049044	0.6	0
Chlorite	7758192	0	0
Chlorobenzene	108907	1000	0
Chlorodibromomethane	124481	0	0.094
Chloroethane (Ethyl Chloride)	75003	30000	0
Chloroform	67663	300	0.019
Chloropicrin	76062	0.4	0
Chromic Trioxide	1333820	0.001	290
Chromium-hexavalent	18540299	0.2	560
Barium chromate2	10294403		
Calcium chromate2	13765190		
Lead chromate2	7758976		
Sodium dichromate2	10588019		
Strontium chromate2	7789062		
CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.001	290
Chrysene	218019	0	0.86
Copper	7440508	0	0
Copper and Copper Compounds	7440508	0	0
Cresol Mixtures	1319773	600	0
Cupferron	135206	0	0.22
Cyanide	57125	9	0
Di(2-ethylhexyl)phthalate	117817	0	0.01
Dibenz(a-h)acridine	226368	0	8.6
Dibenz(a-h)anthracene	53703	0	90.3
Dibenz(a-j)acridine	224420	0	8.6
Dibenzo(a-e)pyrene	192654	0	86
Dibenzo(a-h)pyrene	189640	0	860
Dibenzo(a-i)pyrene	189559	0	860
Dibenzo(a-l)pyrene	191300	0	860
Diesel Exhaust Particulate	85105	5	1.1
Diethanolamine	111422	3	0
Dimethylformamide	68122	80	0
Direct Black 38 (Technical Grade)	1937377	0	7.4
Direct Blue 6 (Technical Grade)	2602462	0	7.4
Direct Brown 95 (Technical Grade)	16071866	0	6.7
Epichlorohydrin	106898	3	0.08
Ethylbenzene	100414	2000	0.0087
Ethylene Glycol	107211	400	0
Ethylene Glycol Monobutyl Ether	111762	0	0
Ethylene Glycol Monoethyl Ether	110805	70	0
Ethylene Glycol Monoethyl Ether Acetate	111159	300	0

Ethylene Glycol Monomethyl Ether	109864	60	0
Ethylene Glycol Monomethyl Ether Acetate	110496	90	0
Ethylene Oxide	75218	30	0.31
Ethylene Thiourea	96457	0	0.045
Fluorides	1101		
Formaldehyde (gas)	50000	9	0.021
Glutaraldehyde	111308	0.08	0
Hexachlorobenzene	118741	0	1.8
Hexachlorocyclohexane (Technical Grade)	608731	0	8.6
Hexachlorocyclohexane- Alpha Isomer	319846	0	8.6
Hexachlorocyclohexane- Beta Isomer	319857	0	8.6
Hexachlorocyclohexane- Gamma Isomer	58899	0	2.4
Hydrazine	302012	0.2	17
Hydrogen Chloride	7647010	9	0
Hydrogen Cyanide	74908	9	0
Hydrogen Fluoride	7664393	1.5	0
Hydrogen Selenide	7783075	0	0
Hydrogen Sulfide	7783064	10	0
Indeno(1-2-3-c-d)pyrene	193395	0	8.6
Isophorone	78591	2000	0
Isopropyl Alcohol	67630	7000	0
Lead Acetate	301042	0	0.62
Lead and Lead Compounds	7439921	0	0.98
Lead Phosphate	7446277	0	0.75
Lead Subacetate	1335326	0	0.75
m-CRESOL	108394		
m-XYLENE	108383		
Maleic Anhydride	108316	0.7	0
Manganese & Manganese Compounds	7439965	0.09	0
Mercury (Inorganic)	7439976	0.0054	0
Mercuric chloride	7487947		
Methanol	67561	4000	0
Methyl Bromide	74839	5	0
Methyl Ethyl Ketone	78933	0	0
Methyl Isocyanate	624839	1	0
Methyl Tertiary Butyl Ether	1634044	8000	0.0018
Methylene Chloride (Dichloromethane)	75092	400	0.0035
Methylene Diphenyl Isocyanate (MDI)	101688	0.7	0
Michlers Ketone	90948	0	0.86
n-Hexane	110543	7000	0
n-Nitroso-n-methylethylamine	10595956	0	22
n-Nitrosodi-n-Butylamine	924163	0	11
n-Nitrosodi-n-Propylamine	621647	0	7
n-Nitrosodiethylamine	55185	0	36
n-Nitrosodimethylamine	62759	0	16
n-Nitrosodiphenylamine	86306	0	0.009
n-Nitrosomorpholine	59892	0	6.7

n-Nitrosopiperidine	100754	0	9.4
n-Nitrosopyrrolidine	930552	0	2.1
Naphthalene	91203	9	0.12
Nickel and Nickel Compounds	7440020	0.014	0.91
Nickel acetate	373024		
Nickel carbonate	3333673		
Nickel carbonyl	13463393		
Nickel hydroxide	12054487		
Nickelocene	1271289		
Nickel Oxide	1313991	0.02	0
Nickel Refinery Dust	1146		
Nickel Subsulfide	12035722	0.0034	0.91
Nitric Acid	7697372	0	0
Nitrogen Dioxide	10102440	0	0
o-CRESOL	95487		
o-XYLENE	95476		
Oleum	8014957	0	0
Ozone	10028156	0	0
p-Chloro-o-toluidine	95692	0	0.27
p-Cresidine	120718	0	0.15
p-CRESOL	106445		
p-Nitrosodiphenylamine	156105	0	0.022
p-XYLENE	106423		
Pentachlorophenol	87865	0	0.018
Perchloroethylene	127184	35	0.021
Phenol	108952	200	0
Phosgene	75445	0	0
Phosphine	7803512	0.8	0
Phosphoric Acid	7664382	7	0
Phthalic Anhydride	85449	20	0
Polychlorinated Biphenyls	1336363	0.00004	74
Potassium Bromate	7758012	1.7	0.49
Propylene	115071	3000	0
Propylene Glycol Monomethyl Ether	107982	7000	0
Propylene oxide	75569	30	0.013
Selenium	7782492	0.21	0
Selenium sulfide	7446346		
Silica (crystalline, respirable)	7631869	3	0
Sodium hydroxide	1310732	0	0
Styrene	100425	900	0
Sulfates	9960		
Sulfur Dioxide	7446095	0	0
Sulfuric Acid	7664939	1	0
Sulfur Trioxide	7446719		
Tertiary-butyl acetate	540885		
Tetrachloroethylene	127184	35	0.021
Thioacetamide	62555	0	6.1

Toluene	108883	300	0
Toluene Diisocyanates	26471625	0.07	0.039
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.07	0.039
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.07	0.039
Trichloroethylene	79016	600	0.007
Triethylamine	121448	200	0
Urethane	51796	0	1
Vanadium pentoxide	1314621	0	0
Vinyl acetate	108054	200	0
Vinyl chloride	75014	0	0.27
Xylenes (technical mixture of m, o, p-isomers)	1330207	700	0
Vanadium	7440622	0	0

Note: Multipathway exposures that takes into account potential increase in cancer potency due to exposures to non-inhalation pathways were addressed by modifying the cancer potency using a weighing factor. The CP weighing factor is listed in Table 2-5-1 of the District's Regulation 2-5. This factor was derived using unit emission rates in CARB's HARP model. TACs with multi-pathway cancer impacts include: arsenic, inorganic arsenic compounds, chromium (hexavalent), inorganic hexavalent chromium compounds, di(2-ethylhexyl) phthalate, hexachlorocyclohexanes, lead, inorganic lead compounds, 4,4-methylene dianiline and its dichloride, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated dibenzop-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and dioxin like PCBs. For inhalation only (non-multipathway) carcinogens, the CP weighting factor is equal to the inhalation cancer potency factor.

File Name: Santa Clara (SF) - 2024 - Annual.EF
CT-EMFAC2017 Version: 1.0.2.27401
Run Date: 8/25/2020 8:55
Area: Santa Clara (SF)
Analysis Year: 2024
Season: Annual

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Vehicle Category	VMT Fraction Across Category	Diesel VM Within Ca	Gas VMT Fraction Within Category
Truck 1	0.026	0.495	0.505
Truck 2	0.036	0.937	0.048
Non-Truck	0.938	0.014	0.955

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

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

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.009055	0.005937	0.004059	0.002926	0.002242	0.001833	0.001603	0.001499	0.001493	0.001568	0.001721	0.001952	0.002272	0.002375	0.002375
TOG	0.187931	0.123609	0.082483	0.057954	0.043756	0.034879	0.029177	0.025607	0.023582	0.022802	0.02316	0.024758	0.02783	0.030083	0.030231
Diesel PM	0.001252	0.001022	0.000793	0.000637	0.00055	0.000516	0.000522	0.000565	0.000641	0.00075	0.000892	0.00106	0.001253	0.001253	0.001253

Fleet Average Fuel Consumption (gallons/veh-mile)

Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Gasoline	0.073111	0.059126	0.04838	0.040247	0.034406	0.030539	0.028284	0.027365	0.027475	0.028262	0.029446	0.030535	0.031451	0.031451	0.031451
Diesel	0.012676	0.010562	0.008188	0.00703	0.006152	0.005433	0.004931	0.004563	0.004345	0.004314	0.004439	0.004687	0.005084	0.005084	0.005084

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

Pollutant Name	Emission Factor
TOG	1.314612

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

Pollutant Name	Emission Factor
PM2.5	0.002189

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

Pollutant Name	Emission Factor
PM2.5	0.017344

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

Pollutant Name	Emission Factor
PM2.5	0.016811

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

San Jose Senior Living - Offsite Residential
Project Operation - Hillsdale Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
DPM_WBH	Hillsdale Avenue Westbound	WB	3	699.6	0.43	17.0	55.7	3.4	40	8,500
DPM_EBH	Hillsdale Avenue Eastbound	EB	3	707.9	0.44	17.0	55.7	3.4	40	8,500
									Total	17,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Vertical Dimension (m)
11,874	127,813	2.035E-09	1.500E-09	6.8	3.16
12,015	129,329	2.035E-09	1.500E-09	6.8	3.16

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00057			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_WBH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	331	2.26E-05	9	6.42%	546	3.72E-05	17	5.62%	477	3.26E-05
2	2.58%	219	1.50E-05	10	7.34%	623	4.25E-05	18	3.27%	278	1.89E-05
3	2.87%	244	1.66E-05	11	6.42%	546	3.72E-05	19	2.35%	200	1.36E-05
4	3.32%	283	1.93E-05	12	6.88%	585	3.99E-05	20	0.86%	73	4.98E-06
5	2.18%	185	1.26E-05	13	6.25%	531	3.62E-05	21	3.09%	263	1.79E-05
6	3.38%	287	1.96E-05	14	6.19%	526	3.59E-05	22	4.13%	351	2.39E-05
7	6.02%	511	3.49E-05	15	5.10%	434	2.96E-05	23	2.52%	214	1.46E-05
8	4.64%	395	2.69E-05	16	3.78%	321	2.19E-05	24	0.92%	78	5.32E-06
								Total		8,500	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_EBH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	331	2.29E-05	9	6.42%	546	3.77E-05	17	5.62%	477	3.30E-05
2	2.58%	219	1.51E-05	10	7.34%	623	4.30E-05	18	3.27%	278	1.92E-05
3	2.87%	244	1.68E-05	11	6.42%	546	3.77E-05	19	2.35%	200	1.38E-05
4	3.32%	283	1.95E-05	12	6.88%	585	4.04E-05	20	0.86%	73	5.04E-06
5	2.18%	185	1.28E-05	13	6.25%	531	3.67E-05	21	3.09%	263	1.82E-05
6	3.38%	287	1.98E-05	14	6.19%	526	3.63E-05	22	4.13%	351	2.42E-05
7	6.02%	511	3.53E-05	15	5.10%	434	2.99E-05	23	2.52%	214	1.48E-05
8	4.64%	395	2.72E-05	16	3.78%	321	2.22E-05	24	0.92%	78	5.38E-06
								Total		8,500	

San Jose Senior Living - Offsite Residential
Project Operation - Hillsdale Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
PM25_WBH	Hillsdale Avenue Westbound	WB	3	699.6	0.43	17.0	56	1.3	40	8,500
PM25_EBH	Hillsdale Avenue Eastbound	EB	3	707.9	0.44	17.0	56	1.3	40	8,500
									Total	17,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Vertical Dimension (m)
11,874	127,813	5.40E-09	3.98E-09	2.6	1.21
12,015	129,329	5.40E-09	3.98E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001499			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_WBH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	98	1.77E-05	9	7.11%	605	1.09E-04	17	7.39%	628	1.14E-04
2	0.42%	36	6.43E-06	10	4.39%	373	6.75E-05	18	8.18%	695	1.26E-04
3	0.41%	35	6.25E-06	11	4.66%	397	7.18E-05	19	5.70%	484	8.76E-05
4	0.26%	22	4.02E-06	12	5.89%	501	9.06E-05	20	4.27%	363	6.58E-05
5	0.50%	42	7.69E-06	13	6.15%	523	9.47E-05	21	3.26%	277	5.01E-05
6	0.90%	77	1.39E-05	14	6.04%	513	9.29E-05	22	3.30%	280	5.07E-05
7	3.79%	322	5.83E-05	15	7.01%	596	1.08E-04	23	2.46%	209	3.79E-05
8	7.76%	660	1.19E-04	16	7.14%	607	1.10E-04	24	1.87%	159	2.87E-05
								Total		8,500	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_EBH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	98	1.79E-05	9	7.11%	605	1.11E-04	17	7.39%	628	1.15E-04
2	0.42%	36	6.50E-06	10	4.39%	373	6.83E-05	18	8.18%	695	1.27E-04
3	0.41%	35	6.32E-06	11	4.66%	397	7.26E-05	19	5.70%	484	8.87E-05
4	0.26%	22	4.07E-06	12	5.89%	501	9.17E-05	20	4.27%	363	6.65E-05
5	0.50%	42	7.78E-06	13	6.15%	523	9.58E-05	21	3.26%	277	5.07E-05
6	0.90%	77	1.41E-05	14	6.04%	513	9.40E-05	22	3.30%	280	5.13E-05
7	3.79%	322	5.90E-05	15	7.01%	596	1.09E-04	23	2.46%	209	3.83E-05
8	7.76%	660	1.21E-04	16	7.14%	607	1.11E-04	24	1.87%	159	2.90E-05
								Total		8,500	

San Jose Senior Living - Offsite Residential
Project Operation - Hillsdale Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEXH_WBH	Hillsdale Avenue Westbound	WB	3	699.6	0.43	17.0	56	1.3	40	8,500
TEXH_EBH	Hillsdale Avenue Eastbound	EB	3	707.9	0.44	17.0	56	1.3	40	8,500
									Total	17,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	Vertical Dimension (m)
11,874	127,813	9.22E-08	6.80E-08	2.6	1.21
12,015	129,329	9.22E-08	6.80E-08	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.02561			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_WBH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	98	3.03E-04	9	7.11%	605	1.87E-03	17	7.39%	628	1.94E-03
2	0.42%	36	1.10E-04	10	4.39%	373	1.15E-03	18	8.18%	695	2.15E-03
3	0.41%	35	1.07E-04	11	4.66%	397	1.23E-03	19	5.70%	484	1.50E-03
4	0.26%	22	6.87E-05	12	5.89%	501	1.55E-03	20	4.27%	363	1.12E-03
5	0.50%	42	1.31E-04	13	6.15%	523	1.62E-03	21	3.26%	277	8.56E-04
6	0.90%	77	2.38E-04	14	6.04%	513	1.59E-03	22	3.30%	280	8.66E-04
7	3.79%	322	9.96E-04	15	7.01%	596	1.84E-03	23	2.46%	209	6.47E-04
8	7.76%	660	2.04E-03	16	7.14%	607	1.88E-03	24	1.87%	159	4.90E-04
								Total		8,500	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	98	3.06E-04	9	7.11%	605	1.89E-03	17	7.39%	628	1.96E-03
2	0.42%	36	1.11E-04	10	4.39%	373	1.17E-03	18	8.18%	695	2.17E-03
3	0.41%	35	1.08E-04	11	4.66%	397	1.24E-03	19	5.70%	484	1.51E-03
4	0.26%	22	6.96E-05	12	5.89%	501	1.57E-03	20	4.27%	363	1.14E-03
5	0.50%	42	1.33E-04	13	6.15%	523	1.64E-03	21	3.26%	277	8.66E-04
6	0.90%	77	2.40E-04	14	6.04%	513	1.61E-03	22	3.30%	280	8.77E-04
7	3.79%	322	1.01E-03	15	7.01%	596	1.87E-03	23	2.46%	209	6.55E-04
8	7.76%	660	2.06E-03	16	7.14%	607	1.90E-03	24	1.87%	159	4.96E-04
								Total		8,500	

San Jose Senior Living - Offsite Residential
Project Operation - Hillsdale Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEVAP_WBH	Hillsdale Avenue Westbound	WB	3	699.6	0.43	17.0	56	1.3	40	8,500
TEVAP_EBH	Hillsdale Avenue Eastbound	EB	3	707.9	0.44	17.0	56	1.3	40	8,500
									Total	17,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	Vertical Dimension (m)
11,874	127,813	1.18E-07	8.73E-08	2.6	1.21
12,015	129,329	1.18E-07	8.73E-08	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.314612			
Emissions per Vehicle per Mile (g/VMT)	0.03287			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_WBH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	98	3.88E-04	9	7.11%	605	2.40E-03	17	7.39%	628	2.49E-03
2	0.42%	36	1.41E-04	10	4.39%	373	1.48E-03	18	8.18%	695	2.76E-03
3	0.41%	35	1.37E-04	11	4.66%	397	1.57E-03	19	5.70%	484	1.92E-03
4	0.26%	22	8.82E-05	12	5.89%	501	1.99E-03	20	4.27%	363	1.44E-03
5	0.50%	42	1.69E-04	13	6.15%	523	2.08E-03	21	3.26%	277	1.10E-03
6	0.90%	77	3.05E-04	14	6.04%	513	2.04E-03	22	3.30%	280	1.11E-03
7	3.79%	322	1.28E-03	15	7.01%	596	2.37E-03	23	2.46%	209	8.30E-04
8	7.76%	660	2.62E-03	16	7.14%	607	2.41E-03	24	1.87%	159	6.29E-04
								Total		8,500	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	98	3.93E-04	9	7.11%	605	2.43E-03	17	7.39%	628	2.52E-03
2	0.42%	36	1.43E-04	10	4.39%	373	1.50E-03	18	8.18%	695	2.79E-03
3	0.41%	35	1.39E-04	11	4.66%	397	1.59E-03	19	5.70%	484	1.94E-03
4	0.26%	22	8.93E-05	12	5.89%	501	2.01E-03	20	4.27%	363	1.46E-03
5	0.50%	42	1.71E-04	13	6.15%	523	2.10E-03	21	3.26%	277	1.11E-03
6	0.90%	77	3.08E-04	14	6.04%	513	2.06E-03	22	3.30%	280	1.13E-03
7	3.79%	322	1.29E-03	15	7.01%	596	2.39E-03	23	2.46%	209	8.40E-04
8	7.76%	660	2.65E-03	16	7.14%	607	2.44E-03	24	1.87%	159	6.37E-04
								Total		8,500	

San Jose Senior Living - Offsite Residential
Project Operation - Hillsdale Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
FUG_WBH	Hillsdale Avenue Westbound	WB	3	699.6	0.43	17.0	56	1.3	40	8,500
FUG_EBH	Hillsdale Avenue Eastbound	EB	3	707.9	0.44	17.0	56	1.3	40	8,500
									Total	17,000

Line Area

Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
11,874	127,813	1.31E-07	9.65E-08	2.6	1.21
12,015	129,329	1.31E-07	9.65E-08	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734			
Road Dust - Emissions per Vehicle (g/VMT)	0.01681			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634			

Emisson Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	98	4.30E-04	9	7.11%	605	2.65E-03	17	7.39%	628	2.76E-03
2	0.42%	36	1.56E-04	10	4.39%	373	1.64E-03	18	8.18%	695	3.05E-03
3	0.41%	35	1.51E-04	11	4.66%	397	1.74E-03	19	5.70%	484	2.12E-03
4	0.26%	22	9.76E-05	12	5.89%	501	2.20E-03	20	4.27%	363	1.59E-03
5	0.50%	42	1.86E-04	13	6.15%	523	2.29E-03	21	3.26%	277	1.22E-03
6	0.90%	77	3.37E-04	14	6.04%	513	2.25E-03	22	3.30%	280	1.23E-03
7	3.79%	322	1.41E-03	15	7.01%	596	2.62E-03	23	2.46%	209	9.18E-04
8	7.76%	660	2.90E-03	16	7.14%	607	2.66E-03	24	1.87%	159	6.96E-04
								Total		8,500	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	98	4.35E-04	9	7.11%	605	2.68E-03	17	7.39%	628	2.79E-03
2	0.42%	36	1.58E-04	10	4.39%	373	1.66E-03	18	8.18%	695	3.09E-03
3	0.41%	35	1.53E-04	11	4.66%	397	1.76E-03	19	5.70%	484	2.15E-03
4	0.26%	22	9.87E-05	12	5.89%	501	2.22E-03	20	4.27%	363	1.61E-03
5	0.50%	42	1.89E-04	13	6.15%	523	2.32E-03	21	3.26%	277	1.23E-03
6	0.90%	77	3.41E-04	14	6.04%	513	2.28E-03	22	3.30%	280	1.24E-03
7	3.79%	322	1.43E-03	15	7.01%	596	2.65E-03	23	2.46%	209	9.29E-04
8	7.76%	660	2.93E-03	16	7.14%	607	2.69E-03	24	1.87%	159	7.04E-04
								Total		8,500	

San Jose Senior Living - Offsite Residential
Project Operation -Almaden Expressway
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
DPM_NBAE	Almaden Expressway Northbound	NB	3	784.1	0.49	17.0	55.7	3.4	50	14,000
DPM_SBAE	Almaden Expressway Southbound	SB	3	787.5	0.49	17.0	55.7	3.4	50	14,000
									Total	28,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Vertical Dimension (m)
13,308	143,250	4.449E-09	3.280E-09	6.8	3.16
13,366	143,871	4.449E-09	3.280E-09	6.8	3.16

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	50			
Emissions per Vehicle (g/VMT)	0.00075			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NBAE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	546	5.54E-05	9	6.42%	899	9.12E-05	17	5.62%	786	7.98E-05
2	2.58%	361	3.66E-05	10	7.34%	1027	1.04E-04	18	3.27%	457	4.64E-05
3	2.87%	401	4.07E-05	11	6.42%	899	9.12E-05	19	2.35%	329	3.34E-05
4	3.32%	465	4.72E-05	12	6.88%	963	9.77E-05	20	0.86%	120	1.22E-05
5	2.18%	305	3.09E-05	13	6.25%	874	8.88E-05	21	3.09%	433	4.40E-05
6	3.38%	473	4.80E-05	14	6.19%	866	8.80E-05	22	4.13%	578	5.86E-05
7	6.02%	842	8.55E-05	15	5.10%	714	7.25E-05	23	2.52%	353	3.58E-05
8	4.64%	650	6.60E-05	16	3.78%	530	5.37E-05	24	0.92%	128	1.30E-05
								Total		14,000	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SBAE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	546	5.56E-05	9	6.42%	899	9.16E-05	17	5.62%	786	8.02E-05
2	2.58%	361	3.68E-05	10	7.34%	1027	1.05E-04	18	3.27%	457	4.66E-05
3	2.87%	401	4.09E-05	11	6.42%	899	9.16E-05	19	2.35%	329	3.35E-05
4	3.32%	465	4.74E-05	12	6.88%	963	9.81E-05	20	0.86%	120	1.23E-05
5	2.18%	305	3.11E-05	13	6.25%	874	8.91E-05	21	3.09%	433	4.42E-05
6	3.38%	473	4.83E-05	14	6.19%	866	8.83E-05	22	4.13%	578	5.89E-05
7	6.02%	842	8.59E-05	15	5.10%	714	7.28E-05	23	2.52%	353	3.60E-05
8	4.64%	650	6.62E-05	16	3.78%	530	5.40E-05	24	0.92%	128	1.31E-05
								Total		14,000	

San Jose Senior Living - Offsite Residential
Project Operation -Almaden Expressway
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
PM25_NBAE	Almaden Expressway Northbound	NB	3	784.1	0.49	17.0	56	1.3	50	14,000
PM25_SBAE	Almaden Expressway Southbound	SB	3	787.5	0.49	17.0	56	1.3	50	14,000
									Total	28,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Vertical Dimension (m)
13,308	143,250	9.302E-09	6.858E-09	2.6	1.21
13,366	143,871	9.302E-09	6.858E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	50			
Emissions per Vehicle (g/VMT)	0.001568			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_NBAE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	161	3.42E-05	9	7.11%	996	2.11E-04	17	7.39%	1034	2.19E-04
2	0.42%	58	1.24E-05	10	4.39%	614	1.30E-04	18	8.18%	1145	2.43E-04
3	0.41%	57	1.21E-05	11	4.66%	653	1.39E-04	19	5.70%	797	1.69E-04
4	0.26%	37	7.77E-06	12	5.89%	824	1.75E-04	20	4.27%	598	1.27E-04
5	0.50%	70	1.48E-05	13	6.15%	861	1.83E-04	21	3.26%	456	9.68E-05
6	0.90%	127	2.68E-05	14	6.04%	845	1.79E-04	22	3.30%	462	9.79E-05
7	3.79%	531	1.13E-04	15	7.01%	982	2.08E-04	23	2.46%	345	7.31E-05
8	7.76%	1087	2.31E-04	16	7.14%	999	2.12E-04	24	1.87%	261	5.54E-05
								Total		14,000	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_SBAE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	161	3.44E-05	9	7.11%	996	2.12E-04	17	7.39%	1034	2.20E-04
2	0.42%	58	1.25E-05	10	4.39%	614	1.31E-04	18	8.18%	1145	2.44E-04
3	0.41%	57	1.21E-05	11	4.66%	653	1.39E-04	19	5.70%	797	1.70E-04
4	0.26%	37	7.80E-06	12	5.89%	824	1.76E-04	20	4.27%	598	1.28E-04
5	0.50%	70	1.49E-05	13	6.15%	861	1.84E-04	21	3.26%	456	9.72E-05
6	0.90%	127	2.70E-05	14	6.04%	845	1.80E-04	22	3.30%	462	9.84E-05
7	3.79%	531	1.13E-04	15	7.01%	982	2.09E-04	23	2.46%	345	7.34E-05
8	7.76%	1087	2.32E-04	16	7.14%	999	2.13E-04	24	1.87%	261	5.57E-05
								Total		14,000	

San Jose Senior Living - Offsite Residential
Project Operation -Almaden Expressway
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEXH_NBAE	Almaden Expressway Northbound	NB	3	784.1	0.49	17.0	56	1.3	50	14,000
TEXH_SBAE	Almaden Expressway Southbound	SB	3	787.5	0.49	17.0	56	1.3	50	14,000
									Total	28,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	Vertical Dimension (m)
13,308	143,250	1.353E-07	9.973E-08	2.6	1.21
13,366	143,871	1.353E-07	9.973E-08	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	50			
Emissions per Vehicle (g/VMT)	0.02280			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NBAE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	161	4.98E-04	9	7.11%	996	3.07E-03	17	7.39%	1034	3.19E-03
2	0.42%	58	1.80E-04	10	4.39%	614	1.89E-03	18	8.18%	1145	3.53E-03
3	0.41%	57	1.75E-04	11	4.66%	653	2.02E-03	19	5.70%	797	2.46E-03
4	0.26%	37	1.13E-04	12	5.89%	824	2.54E-03	20	4.27%	598	1.85E-03
5	0.50%	70	2.16E-04	13	6.15%	861	2.66E-03	21	3.26%	456	1.41E-03
6	0.90%	127	3.90E-04	14	6.04%	845	2.61E-03	22	3.30%	462	1.42E-03
7	3.79%	531	1.64E-03	15	7.01%	982	3.03E-03	23	2.46%	345	1.06E-03
8	7.76%	1087	3.35E-03	16	7.14%	999	3.08E-03	24	1.87%	261	8.06E-04
								Total		14,000	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	161	5.00E-04	9	7.11%	996	3.09E-03	17	7.39%	1034	3.20E-03
2	0.42%	58	1.81E-04	10	4.39%	614	1.90E-03	18	8.18%	1145	3.55E-03
3	0.41%	57	1.76E-04	11	4.66%	653	2.02E-03	19	5.70%	797	2.47E-03
4	0.26%	37	1.13E-04	12	5.89%	824	2.56E-03	20	4.27%	598	1.85E-03
5	0.50%	70	2.17E-04	13	6.15%	861	2.67E-03	21	3.26%	456	1.41E-03
6	0.90%	127	3.92E-04	14	6.04%	845	2.62E-03	22	3.30%	462	1.43E-03
7	3.79%	531	1.64E-03	15	7.01%	982	3.04E-03	23	2.46%	345	1.07E-03
8	7.76%	1087	3.37E-03	16	7.14%	999	3.10E-03	24	1.87%	261	8.10E-04
								Total		14,000	

San Jose Senior Living - Offsite Residential
Project Operation -Almaden Expressway
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEVAP_NBAE	Almaden Expressway Northbound	NB	3	784.1	0.49	17.0	56	1.3	50	14,000
TEVAP_SBAE	Almaden Expressway Southbound	SB	3	787.5	0.49	17.0	56	1.3	50	14,000
									Total	28,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	Vertical Dimension (m)
13,308	143,250	1.560E-07	1.150E-07	2.6	1.21
13,366	143,871	1.560E-07	1.150E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	50			
Emissions per Vehicle per Hour (g/hour)	1.314612			
Emissions per Vehicle per Mile (g/VMT)	0.02629			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NBAE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	161	5.74E-04	9	7.11%	996	3.54E-03	17	7.39%	1034	3.68E-03
2	0.42%	58	2.08E-04	10	4.39%	614	2.18E-03	18	8.18%	1145	4.07E-03
3	0.41%	57	2.02E-04	11	4.66%	653	2.32E-03	19	5.70%	797	2.84E-03
4	0.26%	37	1.30E-04	12	5.89%	824	2.93E-03	20	4.27%	598	2.13E-03
5	0.50%	70	2.49E-04	13	6.15%	861	3.06E-03	21	3.26%	456	1.62E-03
6	0.90%	127	4.50E-04	14	6.04%	845	3.01E-03	22	3.30%	462	1.64E-03
7	3.79%	531	1.89E-03	15	7.01%	982	3.49E-03	23	2.46%	345	1.23E-03
8	7.76%	1087	3.87E-03	16	7.14%	999	3.56E-03	24	1.87%	261	9.30E-04
								Total		14,000	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	161	5.76E-04	9	7.11%	996	3.56E-03	17	7.39%	1034	3.70E-03
2	0.42%	58	2.09E-04	10	4.39%	614	2.19E-03	18	8.18%	1145	4.09E-03
3	0.41%	57	2.03E-04	11	4.66%	653	2.33E-03	19	5.70%	797	2.85E-03
4	0.26%	37	1.31E-04	12	5.89%	824	2.95E-03	20	4.27%	598	2.14E-03
5	0.50%	70	2.50E-04	13	6.15%	861	3.08E-03	21	3.26%	456	1.63E-03
6	0.90%	127	4.52E-04	14	6.04%	845	3.02E-03	22	3.30%	462	1.65E-03
7	3.79%	531	1.90E-03	15	7.01%	982	3.51E-03	23	2.46%	345	1.23E-03
8	7.76%	1087	3.88E-03	16	7.14%	999	3.57E-03	24	1.87%	261	9.34E-04
								Total		14,000	

San Jose Senior Living - Offsite Residential
Project Operation -Almaden Expressway
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
FUG_NBAE	Almaden Expressway Northbound	NB	3	784.1	0.49	17.0	56	1.3	50	14,000
FUG_SBAE	Almaden Expressway Southbound	SB	3	787.5	0.49	17.0	56	1.3	50	14,000
									Total	28,000

Line Area					
					(Sigma z)
Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Initial Vertical Dimension (m)
13,308	143,250	2.156E-07	1.590E-07	2.6	1.21
13,366	143,871	2.156E-07	1.590E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	50			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734			
Road Dust - Emissions per Vehicle (g/VMT)	0.01681			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634			

Emisson Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	161	7.93E-04	9	7.11%	996	4.90E-03	17	7.39%	1034	5.09E-03
2	0.42%	58	2.88E-04	10	4.39%	614	3.02E-03	18	8.18%	1145	5.63E-03
3	0.41%	57	2.80E-04	11	4.66%	653	3.21E-03	19	5.70%	797	3.92E-03
4	0.26%	37	1.80E-04	12	5.89%	824	4.05E-03	20	4.27%	598	2.94E-03
5	0.50%	70	3.44E-04	13	6.15%	861	4.24E-03	21	3.26%	456	2.24E-03
6	0.90%	127	6.22E-04	14	6.04%	845	4.16E-03	22	3.30%	462	2.27E-03
7	3.79%	531	2.61E-03	15	7.01%	982	4.83E-03	23	2.46%	345	1.69E-03
8	7.76%	1087	5.35E-03	16	7.14%	999	4.92E-03	24	1.87%	261	1.28E-03
								Total		14,000	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	161	7.96E-04	9	7.11%	996	4.92E-03	17	7.39%	1034	5.11E-03
2	0.42%	58	2.89E-04	10	4.39%	614	3.03E-03	18	8.18%	1145	5.65E-03
3	0.41%	57	2.81E-04	11	4.66%	653	3.23E-03	19	5.70%	797	3.94E-03
4	0.26%	37	1.81E-04	12	5.89%	824	4.07E-03	20	4.27%	598	2.96E-03
5	0.50%	70	3.46E-04	13	6.15%	861	4.25E-03	21	3.26%	456	2.25E-03
6	0.90%	127	6.25E-04	14	6.04%	845	4.18E-03	22	3.30%	462	2.28E-03
7	3.79%	531	2.62E-03	15	7.01%	982	4.85E-03	23	2.46%	345	1.70E-03
8	7.76%	1087	5.37E-03	16	7.14%	999	4.94E-03	24	1.87%	261	1.29E-03
								Total		14,000	

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions from Hillsdale Avenue
Impacts at Project MEI

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
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*	2024	10	0.0004	0.0191	0.0244	0.005	0.001	0.0001	0.01
1	1	0 - 1	2024	10	0.0004	0.0191	0.0244	0.066	0.018	0.0013	0.08
2	1	1 - 2	2025	10	0.0004	0.0191	0.0244	0.066	0.018	0.0013	0.08
3	1	2 - 3	2026	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
4	1	3 - 4	2027	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
5	1	4 - 5	2028	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
6	1	5 - 6	2029	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
7	1	6 - 7	2030	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
8	1	7 - 8	2031	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
9	1	8 - 9	2032	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
10	1	9 - 10	2033	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
11	1	10 - 11	2034	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
12	1	11 - 12	2035	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
13	1	12 - 13	2036	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
14	1	13 - 14	2037	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
15	1	14 - 15	2038	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
16	1	15 - 16	2039	3	0.0004	0.0191	0.0244	0.010	0.003	0.0002	0.01
17	1	16-17	2040	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
18	1	17-18	2041	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
19	1	18-19	2042	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
20	1	19-20	2043	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
21	1	20-21	2044	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
22	1	21-22	2045	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
23	1	22-23	2046	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
24	1	23-24	2047	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
25	1	24-25	2048	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
26	1	25-26	2049	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
27	1	26-27	2050	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
28	1	27-28	2051	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
29	1	28-29	2052	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
30	1	29-30	2053	1	0.0004	0.0191	0.0244	0.001	0.000	0.0000	0.001
Total Increased Cancer Risk								0.30	0.081	0.006	**0.38**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00	0.03	0.028

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions from Hillsdale Avenue
Impacts at Project MEI

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
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*	2024	10	0.0037	0.0970	0.1064	0.050	0.008	0.0005	0.06
1	1	0 - 1	2024	10	0.0037	0.0970	0.1064	0.601	0.091	0.0059	0.70
2	1	1 - 2	2025	10	0.0037	0.0970	0.1064	0.601	0.091	0.0059	0.70
3	1	2 - 3	2026	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
4	1	3 - 4	2027	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
5	1	4 - 5	2028	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
6	1	5 - 6	2029	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
7	1	6 - 7	2030	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
8	1	7 - 8	2031	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
9	1	8 - 9	2032	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
10	1	9 - 10	2033	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
11	1	10 - 11	2034	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
12	1	11 - 12	2035	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
13	1	12 - 13	2036	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
14	1	13 - 14	2037	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
15	1	14 - 15	2038	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
16	1	15 - 16	2039	3	0.0037	0.0970	0.1064	0.095	0.014	0.0009	0.11
17	1	16-17	2040	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
18	1	17-18	2041	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
19	1	18-19	2042	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
20	1	19-20	2043	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
21	1	20-21	2044	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
22	1	21-22	2045	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
23	1	22-23	2046	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
24	1	23-24	2047	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
25	1	24-25	2048	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
26	1	25-26	2049	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
27	1	26-27	2050	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
28	1	27-28	2051	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
29	1	28-29	2052	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
30	1	29-30	2053	1	0.0037	0.0970	0.1064	0.011	0.002	0.0001	0.012
Total Increased Cancer Risk								2.72	0.412	0.027	**3.16**

	Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.00	0.15	0.153

* Third trimester of pregnancy

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions from Hillsdale Avenue
Impacts upon Project Onsite Sensitive Receptors

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)			Adult 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	1	>30	2024	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
1	1	>30	2024	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
2	1	>30	2025	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
3	1	>30	2026	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
4	1	>30	2027	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
5	1	>30	2028	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
6	1	>30	2029	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
7	1	>30	2030	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
8	1	>30	2031	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
9	1	>30	2032	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
10	1	>30	2033	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
11	1	>30	2034	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
12	1	>30	2035	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
13	1	>30	2036	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
14	1	>30	2037	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
15	1	>30	2038	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
16	1	>30	2039	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
17	1	>30	2040	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
18	1	>30	2041	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
19	1	>30	2042	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
20	1	>30	2043	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
21	1	>30	2044	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
22	1	>30	2045	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
23	1	>30	2046	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
24	1	>30	2047	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
25	1	>30	2048	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
26	1	>30	2049	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
27	1	>30	2050	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
28	1	>30	2051	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
29	1	>30	2052	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
30	1	>30	2053	1	0.0012	0.0568	0.0727	0.003	0.001	0.0001	0.004
Total Increased Cancer Risk								0.10	0.029	0.002	**0.13**

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00	0.08	0.084

* Third trimester of pregnancy

San Jose Senior Living, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions from Hillsdale Avenue
Impacts upon Project Onsite Sensitive Receptors

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
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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
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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)			Adult 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	1	>30	2024	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
1	1	>30	2024	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
2	1	>30	2025	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
3	1	>30	2026	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
4	1	>30	2027	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
5	1	>30	2028	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
6	1	>30	2029	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
7	1	>30	2030	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
8	1	>30	2031	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
9	1	>30	2032	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
10	1	>30	2033	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
11	1	>30	2034	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
12	1	>30	2035	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
13	1	>30	2036	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
14	1	>30	2037	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
15	1	>30	2038	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
16	1	>30	2039	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
17	1	>30	2040	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
18	1	>30	2041	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
19	1	>30	2042	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
20	1	>30	2043	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
21	1	>30	2044	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
22	1	>30	2045	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
23	1	>30	2046	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
24	1	>30	2047	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
25	1	>30	2048	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
26	1	>30	2049	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
27	1	>30	2050	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
28	1	>30	2051	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
29	1	>30	2052	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
30	1	>30	2053	1	0.0053	0.1611	0.1694	0.015	0.003	0.0002	0.018
Total Increased Cancer Risk								0.47	0.082	0.005	**0.56**

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00	0.23	0.244

* Third trimester of pregnancy