

400 SARATOGA AVENUE AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

Santa Clara, California

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Introduction

The purpose of this report is to address the potential air quality, health risk, and greenhouse gas (GHG) impacts associated with the proposed residential development, golf course renovations, and public park located at 400 Saratoga Avenue in Santa Clara, California. Air quality and GHG emissions would be associated with the demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with construction and operation of the project were estimated using appropriate computer models. In addition, the potential project health risks associated with construction and operation of the project and the impact of existing toxic air contaminant (TAC) sources affecting the nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air District (Air District).¹

Project Description

The project site currently consists of the nine-hole Pruneridge Golf Club, including a clubhouse, driving range, and maintenance facility. The project proposes to reconfigure the existing golf course while retaining the existing 6.4-acre portion of the driving range, clubhouse, and surface parking lot. The project would also demolish the existing maintenance buildings (at the southern end of the site) and construct a five-story, 316-unit apartment building with a seven-story parking structure with 407 parking spaces wrapped inside (Building 1) and a new one-story maintenance building (Building 2) with an outdoor storage and equipment yard. Building 2 would be located east of Building 1, which would be located in the southwest corner of the site. Additionally, a 1.77-acre public park is planned for the southeast section of the project site. The project would also include 26 surface parking stalls for apartment guest, employees of the golf course maintenance building, and public park users. Construction is anticipated to occur from January 2027 through February 2029.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all federal ambient air quality standards with the exception of ground-level ozone and fine particulate matter (PM_{2.5}), and all State air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀), and PM_{2.5}.²

Air Pollutants of Concern

High ozone concentrations in the air basin are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form ozone. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ambient ozone concentrations. The highest ozone

¹ Formerly known as the Bay Area Air Quality Management District (BAAQMD), *2022 CEQA Guidelines*, April 2023.

² The Bay Area has attained the carbon monoxide (CO) standard and monitoring data from the last 30 years show relatively low concentrations throughout the Bay Area. Therefore, CO is no longer an air quality issue in the area.

concentrations in the Bay Area occur in the eastern and southern inland valleys downwind of existing air pollutant sources. High ozone concentrations aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the air basin. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide emissions and localized emissions. High particulate matter concentrations aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children. Due to the adverse health effects caused by PM_{2.5} exposure even at low concentrations, the Air District has developed health risk thresholds to address exposure to increased PM_{2.5} concentrations caused by projects.³

Toxic Air Contaminants

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

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about seventy percent of the cancer risk from TACs (based on the Bay Area average).⁴ According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015 and incorporated into the Air District's California Environmental Quality Act (CEQA) guidance.⁵

PM_{2.5} emissions can include TACs. Due to the adverse health effects caused by PM_{2.5} exposure even at low concentrations, the Air District developed assessing methods and health risk thresholds to address exposure to increased concentrations caused by project PM_{2.5} emissions.⁶

³ Bay Area Air District, 2022 CEQA Air Quality Guidelines, Appendix A, p40.

⁴ CARB, *Summary: Diesel Particulate Matter Health Impacts*, Web: https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts#footnote1_7yob8j5.

⁵ 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.

⁶ Bay Area Air District, 2022 CEQA Air Quality Guidelines, Appendix A, p40.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, people over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, infants and 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 in the single- and multi-family residences adjacent to the project site to the north. There are additional residences surrounding the site at further distances. There are also infants and children located at the L'Academy Language Immersion Preschool and the Westwood Elementary School east of the site. Due to the project's proximity to nearby businesses, worker receptors were also included in this analysis. This project would introduce new sensitive receptors (i.e., residents) to the area.

Regulatory Setting

Ambient Air Quality Standards

The Federal and California Clean Air Acts have established ambient air quality standards for "criteria" pollutants. Criteria pollutants are considered the most prevalent air pollutants that are known to be hazardous to human health. National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), respirable particulate matter with a diameter less than 10 microns (PM₁₀), sulfur dioxide (SO₂), and lead (Pb).⁷ In 1997, The Environmental Protection Agency (EPA) added fine particulate matter (PM_{2.5}).

CARB has established California ambient air quality standards (CAAQS) that include the NAAQS pollutants and additional standards for hydrogen sulfide, sulfates, vinyl chloride, and visibility. The additional CAAQS pollutants tend to have unique sources and are not typically included in CEQA assessments.

The Air District is responsible for developing a Clean Air Plan which guides the region's air quality planning efforts to attain both the NAAQS and CAAQS. The Air District's *2017 Clean Air Plan* is the current Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_x), particulate matter (PM₁₀ and PM_{2.5}) and greenhouse gas (GHG) emissions.

Federal Regulations

The U.S. EPA sets NAAQS and emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles

⁷ Lead concentrations have decreased dramatically since it was removed from motor vehicle fuels decades ago.

and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards.

In the past twenty years, the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_x and particulate matter (PM_{2.5}) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_x emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.⁸

The EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of DPM. The current standards limit the amount of sulfur allowed in diesel fuel to 15 parts per million by weight (ppmw). Ultra-low sulfur diesel (ULSD), as it is referred to, is required for use by all vehicles in the U.S.

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

State Regulations

The California Air Resources Board (CARB) has set statewide emission standards for on-road and off-road mobile sources that are more stringent than those adopted by the EPA. 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 adopted a regulation to reduce emissions of DPM and NO_x from on-road heavy-duty diesel fueled vehicles. It required affected vehicles to meet specific performance requirements, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023.⁹ Advanced Clean Cars and Advanced Clean Cars II (ACC II) that will require new all new cars and light trucks sold in California will be zero-emission vehicles by 2035.

CARB has also adopted and implemented regulations to reduce DPM and NO_x emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.).¹⁰ The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NO_x exhaust emissions by imposing limits on idling, requiring vehicles to be report to CARB's DOORS online reporting system, restricting the adding of older vehicles into fleets and banning older Tiered engines, and requiring owners to turn over their fleet (replace older

⁸ USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

⁹ Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: November 21, 2014.

¹⁰ CARB, Web: <https://ww2.arb.ca.gov/resources/fact-sheets/overview-amendments-use-road-diesel-fueled-fleets-regulation>

equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates.¹¹ Implementation of this regulation, in conjunction with stringent federal off-road equipment engine emission limits for new vehicles, significantly reduces emissions of DPM and NO_x in order to help reduce the health risk throughout California.

To address the issue of diesel emissions in the state, CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.¹² A significant component of the plan involves the application of emission control strategies to existing diesel vehicles and equipment in addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road emission standards for new diesel engines, as well as adoption of regulations for ULSD fuel in California.

Bay Area Air District

The Air District has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

The Air District is the lead agency in developing plans to address attainment and maintenance of the NAAQS and CAAQS. The District also has authority to permit stationary sources of emissions that could be constructed or installed by the proposed project, such as emergency generators. The Air District is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

The Air District's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.¹³ The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program has been implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses has been used to develop emission reduction activities in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Seven areas have been

¹¹ CARB, Web: <https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-diesel-regulation>

¹² California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

¹³ See Bay Area Air District: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>.

identified by the Air District as impacted communities. They include Eastern San Francisco, Richmond/San Pablo, Western Alameda, San José, Vallejo, Concord, and Pittsburgh/Antioch. The project site is within the San José CARE area.

Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.¹⁴ The Air District has identified several overburdened areas within its boundaries. The project site is not within an overburdened area as the Project site is scored at the 19th percentile on CalEnviroScreen.¹⁵

Furnaces and Boilers and Water Heaters

In 2023, the Air District adopted the proposed amendments to Rules 9-4 and 9-6 that are intended to reduce emissions of NOx from residential and commercial water heaters. These amended rules will affect Bay Area households that use natural gas appliances by, essentially, prohibiting the installation of new natural gas-fired furnaces and water heaters. The rules require appliances that do not emit NOx. Currently, the only zero-NOx appliances available are electric appliances. Implementation begins in 2027, where only zero-NOx water heaters can be sold or installed, in 2029 where only zero-NOx furnaces can be sold or installed, and 2031 where only zero-NOx large commercial heaters can be sold or installed. Note that electric appliances would have zero emission of other criteria pollutants and zero emissions in direct GHG emissions.

Air District CEQA Air Quality Guidelines

In June 2010, the Air District adopted thresholds of significance to assist in the review of projects under CEQA. In 2023, the Air District revised the *CEQA Air Quality Guidelines* that include significance thresholds to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The current Air District guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They include assessment methodologies for criteria air pollutants, air toxics, odors, and GHG emissions, as shown in Table 1.¹⁶ Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

The Air District recommends all projects include a “basic” set of best management practices (BMPs) to manage fugitive dust and consider impacts from dust (i.e., fugitive PM₁₀ and PM_{2.5}) to be less than significant if BMPs are implemented (listed below). The Air District strongly encourages enhanced BMPs for construction sites near schools, residential areas, other sensitive land uses, or if air quality impacts were found to be significant.

¹⁴ See Bay Area Air District: https://www.baaqmd.gov/~media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofverburdenedcommunities-pdf.pdf?la=en.

¹⁵ OEHHA, CalEnviroScreen 4.0 Maps <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

¹⁶ Bay Area Air District, 2023. 2022 *CEQA Guidelines*. April.

Table 1. Bay Area Air District CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds		Operational Thresholds	
	Average Daily Emissions (lbs./day)		Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54		54	10
NO _x	54		54	10
PM ₁₀	82 (Exhaust)		82	15
PM _{2.5}	54 (Exhaust)		54	10
CO	Not Applicable		9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices (BMPs)*		Not Applicable	
Health Risks and Hazards	Single Sources/ Individual Project		Combined Sources (Cumulative from all sources within 1000-foot zone of influence)	
Excess Cancer Risk	>10 in a million	OR Compliance with Qualified Community Risk Reduction Plan	>100 in a million	OR Compliance with Qualified Community Risk Reduction Plan
Hazard Index	>1.0		>10.0	
Incremental annual PM _{2.5}	>0.3 µg/m ³		>0.8 µg/m ³	
Greenhouse Gas Emissions				
Land Use Projects – (Must Include A or B)	A. Projects must include, at a minimum, the following project design elements: - Buildings - The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). - The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. - Transportation - Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA: - Residential projects: 15 percent below the existing VMT per capita - Office projects: 15 percent below the existing VMT per employee - Retail projects: no net increase in existing VMT - Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2. B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).			
Note: ROG = reactive organic gases, NO_x = nitrogen oxides, PM₁₀ = 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. * Bay Area Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.				

Source: Bay Area Air District, 2022

City of Santa Clara 2010 – 2035 General Plan.

On November 16, 2010, the City of Santa Clara adopted the *City of Santa Clara 2010 – 2035 General Plan*.¹⁷ It updated portions of the Plan on December 9, 2014 and included the City's Climate Action Plan (CAP) as an appendix to the Plan. The City's CAP was updated on June 7, 2022.

The current general plan includes goals, policies, and actions to reduce air pollutants and exposure to toxic air containments. The following goals, policies, and actions are applicable to the proposed project and this assessment:

5.10.2 Air Quality Goals

- 5.10.2-G1 Improved air quality in Santa Clara and the region.
- 5.10.2-G2 Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.

5.10.2 Air Quality Policies

- 5.10.2-P3 Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
- 5.10.2-P4 Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.
- 5.10.2-P6 Require "Best Management Practices" for construction dust abatement.

AIR QUALITY IMPACTS AND CONTROL MEASURES

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

The Bay Area Air District is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin (SFBAAB). The Air District, with assistance from the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), prepares and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.¹⁸ The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The Air District has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality and GHG impacts. In formulating compliance strategies, the Air District relies on planned land uses established by local general

¹⁷ City of Santa Clara, 2010. *City of Santa Clara 2010 – 2035 General Plan*. November. Web: <https://www.santaclaraca.gov/home/showdocument?id=56139>

¹⁸ Bay Area Air District, 2017. *Final 2017 Clean Air Plan*.

plans. Land use planning affects vehicle travel, which, in turn, affects region-wide emissions of air pollutants and GHGs.

The 2017 Clean Air Plan, adopted by the Air District in April 2017, includes control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. Guidance provided in the Air District CEQA guidelines recommends that Plans show consistency with the control measures listed within the Clean Air Plan. At the project-level, there are no consistency measures or thresholds provided in the Air District's CEQA guidance. The Project is a small residential development that would not introduce any substantial sources of air pollutants or sources permitted by the Air District. The proposed project would not conflict with the latest Clean Air planning efforts since 1) project would have emissions below the Air District thresholds (see Impact below), 2) the project would be considered urban infill as it redevelops an active land use, 3) the project would be located near employment centers, and 4) the project would be located near transit with regional connections.

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

The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the NAAQS and the CAAQS. The area is also considered non-attainment for PM₁₀ under the CAAQS, but not the NAAQS. The area has attained both State and Federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O₃, PM_{2.5} and PM₁₀, the Air District has established thresholds of significance for these air pollutants and their precursors. The O₃ precursor pollutant thresholds are for ROG and NO_x, while PM₁₀, and PM_{2.5} have specific thresholds. The thresholds apply to both construction period emissions and operational period emissions. The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from construction activities and project operation.

Construction Period Emissions

CalEEMod was used to estimate emissions from Project construction that include on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CalEEMod model output along with construction inputs are included in *Attachment 1*.

CalEEMod Inputs

Land Uses

The proposed project would be constructed in separate phases for each of the project areas (apartments, golf course, and public park) but occurring at the same time. Separate CalEEMod runs were conducted for each of the project areas, as described in Table 2.

Table 2. Summary of Project Land Use Inputs

Table 2: Summary of Project Land Use Impacts				
Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Apartments (2027-2029)				
Apartments Mid-Rise	316	Dwelling Unit	324,400*	3.66
Enclosed Parking with Elevator	407	Parking Space	152,823	
Parking Lot	26	Parking Spaces	-	
Golf Course (2027)				
Golf Course	17.1	Acres	744,000	17.1
Public Park (2027)				
City Park	1.77	Acres	77,140	1.77

* Includes square footage of the apartments, maintenance building, and equipment yard.

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment quantities, average hours per day, total number of workdays, and schedule, were based on information provided by the project applicant (included in *Attachment 1*). The applicant's construction schedule provided a start date of January 2027 for each project area, with the entire project being built out over a period of approximately 26 months, or 565 construction workdays. The earliest year of operation was assumed to be 2029.

Construction Traffic Emissions

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

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 3 shows the annualized average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. As indicated in Table 3, estimated annualized project construction emissions would not exceed the Air District CEQA significance thresholds during any year of construction.

Table 3. Construction Period Emissions - Uncontrolled

Year	ROG	NO_x	PM₁₀ Exhaust	PM_{2.5} Exhaust
<i>Construction Emissions Total (Tons)</i>				
2027 (Apartments + Golf Course + Public Park)	0.20	1.50	0.05	0.04
2028+2029* (Apartments)	2.54	2.13	0.04	0.03
<i>Average Daily Construction Emissions (pounds/day)</i>				
2027 (261 construction workdays)	1.56	11.52	0.37	0.34
2028+ 2029 (304 construction workdays)	16.70	14.01	0.24	0.22
<i>BAAQMD Thresholds (pounds per day)</i>	54 lbs./day	54 lbs./day	82 lbs./day	54 lbs./day
Exceed Threshold?	No	No	No	No

* Years were combined since only two months into 2029.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. The Air District recommends all projects include a “basic” set of best management practices (BMPs) to manage fugitive dust and considers impacts from dust (i.e., fugitive PM₁₀ and PM_{2.5}) to be less-than-significant if BMPs are implemented to reduce these emissions. Santa Clara General Plan Policy 5.10.2-P6 require implementation of the Air District basic BMPs to control dust during construction. Therefore, the applicant shall ensure that the project contractor implements Air District basic BMPs to control dust and fugitive emissions. The Air District basic BMPs include:

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 practicable. Building pads shall be laid as soon as practicable after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
8. Unpaved roads providing access to site located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

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

Operational Period Emissions

ROG, Particulate Matter (PM), and NO_x air emissions from the project would be generated primarily from autos driven by future residents and public park users. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are also typical ROG emission sources from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Inputs

Land Uses

All project land uses were input to CalEEMod for the operational period modeling in the year 2029. Inputs are summarized in Table 4.

Table 4. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Apartments Mid-Rise	316	Dwelling Unit	324,400	3.66
Enclosed Parking with Elevator	407	Parking Space	152,823	-
Parking Lot	26	Parking Spaces	-	-
Golf Course	17.1	Acres	744,000	17.1
City Park	1.77	Acres	77,140	1.77

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, the higher the emission rates utilized by CalEEMod. The earliest year of operation would be 2029 if construction begins in 2027. Emissions associated with build-out later than 2029 would be lower.

Traffic Information

The project-specific daily trip generation rate provided by the traffic consultant was entered into the model.¹⁹ The project would produce approximately 1,506 gross daily trips. When accounting for transportation demand management (TDM) trip reductions associated with the apartment building, the project would produce 1,362 new daily trips. The daily trip generation was calculated by the Traffic Consultant using the 11th Edition ITE trip generation rates, the size of the project land uses, and the adjusted total automobile trips after reductions. The Saturday and Sunday trip

¹⁹ Hexagon Transportation Consultants, Inc., 400 Saratoga Avenue Residential Development Draft Transportation Analysis, May 2, 2025.

rates were derived by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate. The default trip lengths and trip types specified by CalEEMod were used.

Energy

CalEEMod defaults for energy use were used which include the 2019 Title 24 Building Standards. These defaults are conservative, as the Project would need to meet the latest Title 24 Building Standards. GHG emissions modeling includes indirect emissions from electricity consumption. An emission factor of 0 pounds of CO₂ per megawatt of electricity produced was entered into CalEEMod, which is based on Silicon Valley Power's (SVP) 2023 residential emissions rate.²⁰

The Project plans do not show any natural gas infrastructure, and according to the project applicant the installed appliances would be all electric. Therefore, natural gas use for the project was set to zero and reassigned to electricity use.

Wood-Burning Devices

CalEEMod default inputs assume new residential construction would include wood-burning fireplaces and stoves. The project would not include wood-burning devices, as these devices are prohibited by the Air District Regulation 6, Rule 3.²¹ Additionally, the project would not include natural gas appliances. Therefore, the number of woodstoves and fireplaces in CalEEMod were set to zero.

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water use were applied to the project. Wastewater treatment was estimated to be 100 percent aerobic conditions to represent City wastewater treatment plant conditions. The project site would not send wastewater to on-site septic tanks or facultative lagoons.

Summary of Computed Operational Period Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimated assuming 365 days of operation. Table 5 shows unmitigated net average daily operational emissions of ROG, NO_x, total PM₁₀, and total PM_{2.5} during operation of the project. Operational period emissions would not exceed the Air District CEQA significance thresholds.

²⁰ Silicon Valley Power, Power Content Label. Web: <https://www.siliconvalleypower.com/svp-and-community/about-svp/power-content-label>

²¹ Bay Area Air District, https://www.baaqmd.gov/~/media/dotgov/files/rules/regulation-6-rule-3/documents/20191120_r0603_final-pdf.pdf?la=en

Table 5. Operational Period Emissions

Scenario	ROG	NO _x	PM ₁₀	PM _{2.5}
2029 Annual Project Operational Emissions (<i>tons/year</i>)	2.43	0.43	1.01	0.26
<i>Air District Thresholds (tons /year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
<i>Exceed Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2030 Daily Project Operational Emissions (<i>pounds/day</i>) ¹	13.31	2.36	5.52	1.43
<i>Air District Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ¹Assumes 365-day operation.

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

Project impacts related to increased health risk can occur by generating emissions of TACs and air pollutants. This project would introduce new sources of TACs during construction (e.g., on-site construction and truck hauling emissions). Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would not include stationary sources but would generate some traffic consisting of mostly light-duty gasoline-powered vehicles, which would produce TAC and air pollutant emissions.

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

Health Risk Methodology

Health risk impacts were addressed by predicting increased cancer risk, the increase in annual PM_{2.5} concentrations, and by computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operational 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 Air District guidance,²² with the sensitive receptors being exposed to both project construction and operational emissions during this timeframe.

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

The methodology for computing health risks impacts is contained in Appendix E of the Air District CEQA Guidelines. TAC and PM_{2.5} emissions are calculated, a dispersion model used to estimate ambient pollutant concentrations, and cancer risks and HI calculated using DPM concentrations.

²² Bay Area Air District, Appendix E of the 2022 *CEQA Air Quality Guidelines*, April 2023

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations and workers would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences, workers, and schools near the site as shown in Figure 1. Residential receptors were assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions, while infant and child receptors were assumed at the schools. DPM and PM_{2.5} concentrations were also calculated at worker receptors near the project site. While there are additional sensitive receptors within 1,000 feet of the project site, the receptors chosen are adequate to identify maximum impacts from the project.

Health Risk from Project Construction

The primary health risk impact issues associated with construction projects are cancer risks associated with diesel exhaust (i.e., DPM), which is a known TAC, and exposure to high ambient concentrations of dust (i.e., PM_{2.5}). DPM poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and PM_{2.5}.²³ This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be estimated.

Construction Emissions

The CalEEMod model provided total uncontrolled annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles. Total DPM emissions were estimated to be 0.08 tons (162 pounds) and fugitive dust emissions (PM_{2.5}), assuming application of Air District basic BMPs, to be 0.01 tons (26 pounds) from all construction stages. The on-road emissions are a result of haul truck travel during grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that the emissions from on-road vehicles traveling at or near the site would occur at the construction site.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} concentrations at sensitive receptors in the vicinity of the project construction area. The AERMOD dispersion model is an Air District-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.²⁴ Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions.

²³ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

²⁴ Bay Area Air District, Appendix E of the 2022 *CEQA Guidelines*, April 2023.

Construction Sources

To represent the construction equipment exhaust emissions, an area source was used with an emission release height of 20 feet (6 meters).²⁵ The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, was 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 in an 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 five-year meteorological data set (2013-2017) from the San José Airport prepared for use with the AERMOD model by the Air District. Construction emissions were modeled as occurring Monday through Friday between 7:00 a.m. to 5:00 p.m., per the project applicant's construction schedule. Annual DPM and PM_{2.5} concentrations from construction activities during the 2027-2029 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing height on the first and second floors of nearby residences and of workers in the nearby businesses.²⁶ A receptor height of 3 feet (1 meter) was used to represent the breathing heights of infant and children at the nearby schools.

Health Risks from Project Operation

Diesel stationary equipment that could emit substantial TACs (e.g., emergency generators) are not planned for this project. Diesel powered vehicles are the primary concern with local traffic-generated TAC impacts. This project would generate 1,362 net daily trips²⁷ with most of the trips

²⁵ 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>

²⁶ Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines*. April 2023

²⁷ Hexagon Transportation Consultants, Inc., *400 Saratoga Avenue Residential Development Draft Transportation Analysis*, May 2, 2025.

being from light-duty gasoline-powered vehicles (i.e., passenger cars). In addition, the project is not anticipated to generate large amounts of truck trips that would involve diesel vehicles. Therefore, this is not a project of concern for mobile sources. Emissions from project traffic are considered negligible and not included within this analysis.

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

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

Non-cancer health hazards and maximum PM_{2.5} concentrations were also calculated. The maximum modeled annual PM_{2.5} concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI value was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation DPM reference exposure level of 5 µg/m³. The annual PM_{2.5} concentration and HI values are based on an annual maximum risk for the entirety of the project.

The modeled maximum annual DPM and PM_{2.5} concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the construction MEIs were located at two different receptors (i.e., one for cancer risk and the other for annual PM_{2.5} concentration). The cancer risk MEI was located on the first floor (5 feet above ground) of a single-family residence west of the project site opposite San Tomas Expressway. The annual PM_{2.5} concentration MEI was located on the first floor (5 feet above ground) of a worker receptor southeast of the site opposite Pruneridge Avenue.

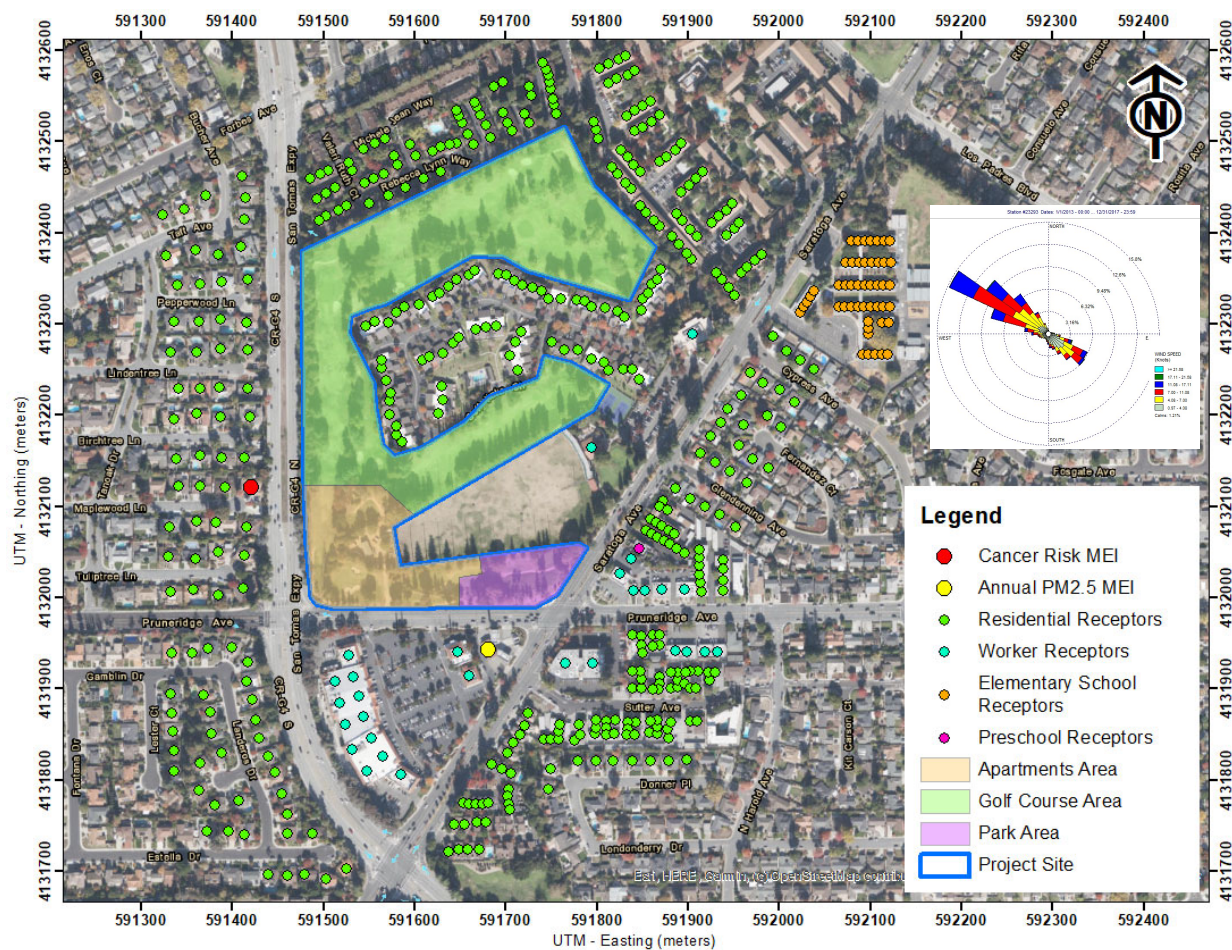
The location of the MEIs and nearby receptors are shown in Figure 1. Table 6 summarizes the maximum cancer risks, PM_{2.5} concentrations, and HI for project related construction activities at the MEIs and maximum school receptors. *Attachment 2* to this report includes the emission calculations used for the construction dispersion modeling and the cancer risk calculations. As shown in Table 6, the uncontrolled health risk impacts at the MEIs do not exceed the Air District's single-source significance threshold.

Table 6. Health Risk Impacts at the Off-Site MEI

Source		Cancer Risk ¹ (per million)	Annual PM _{2.5} ¹ (µg/m ³)	Hazard Index
Maximum Residential Impact – Maximum Cancer Risk Impact				
Project Construction	Uncontrolled	8.62 (infant)	0.03	0.01
	<i>Air District Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
Exceed Threshold?	Uncontrolled	No	No	No
Maximum Worker Impact - Maximum Annual PM_{2.5} Concentration Impact				
Project Construction	Uncontrolled	0.51 (adult)	0.06	0.01
	<i>Air District Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
Exceed Threshold?	Uncontrolled	No	No	No
Maximum School Impact - L'Academy Language Immersion Preschool				
Project Construction	Uncontrolled	6.02 (infant)	0.01	<0.01
	<i>Air District Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
Exceed Threshold?	Uncontrolled	No	No	No

Notes: ¹ The maximum cancer risk and PM_{2.5} concentration occur at different receptor locations.

Figure 1. Locations of Project Construction Areas, Off-Site Receptors, Maximum TAC Impacts (MEIs), and San Jose Airport Wind Rose

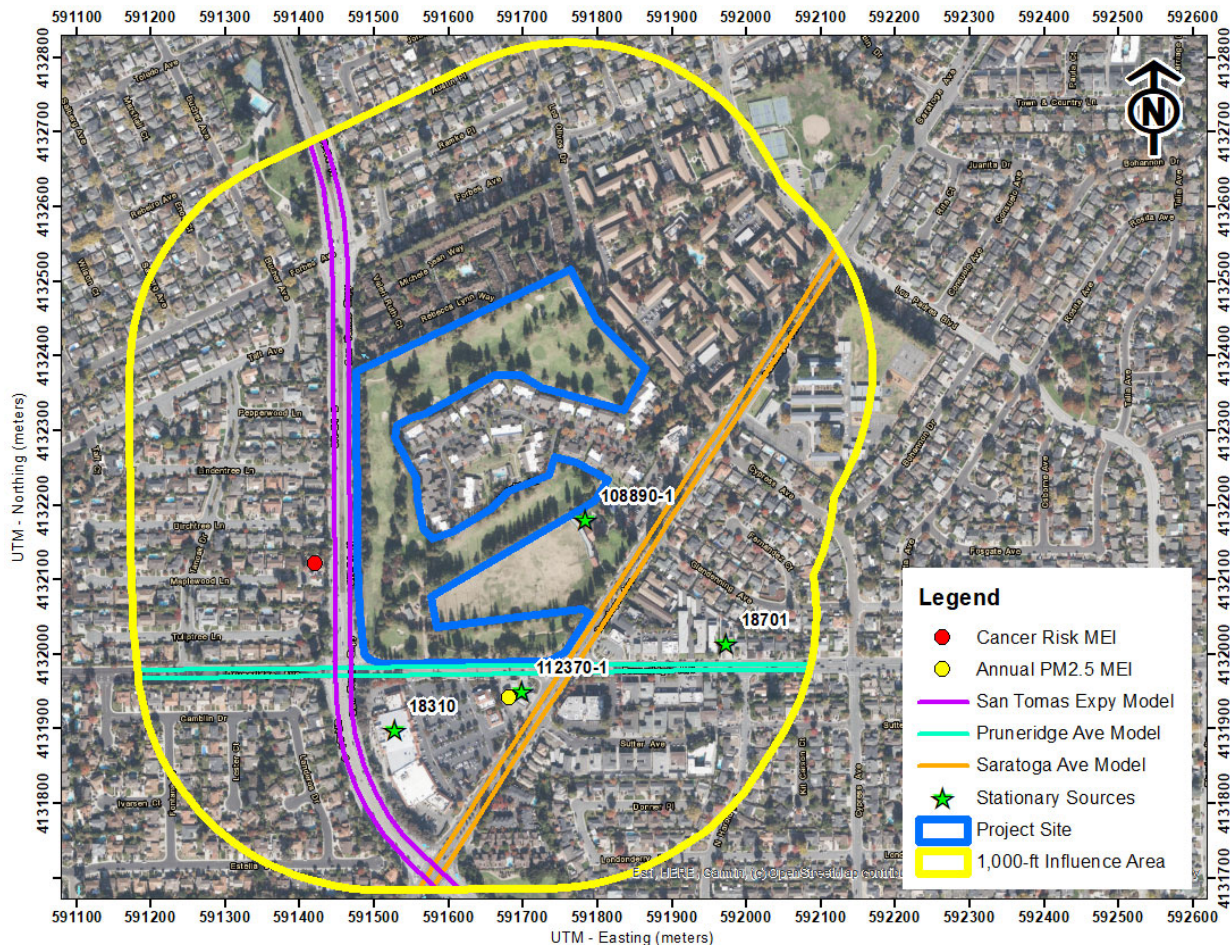


Cumulative Health Risks of all TAC Sources at the Off-Site Project MEIs

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., the influence area). These sources include railways, highways, busy surface streets, and stationary sources identified by the Air District.

A review of the project area using the Air District's geographic information systems (GIS) screening maps identified the existing health risks from nearby roadways and stationary sources at the MEIs. Large local roadways, including San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue, and four existing stationary sources of TACs were identified with the potential to affect the project MEIs. Figure 2 shows the sources affecting the MEIs. Health risk impacts from these sources upon the MEIs are reported in Table 7. Details of the cumulative screening, modeling, and health risk calculations are included in *Attachment 3*.

Figure 2. Locations of Project Site, MEIs, and Nearby TAC and PM_{2.5} Sources



Local Roadways – San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue

A refined analysis of potential health impacts from vehicle traffic on the San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue was conducted since these roadways were identified as having high cancer risk and PM_{2.5} concentration impacts on the Air District screening maps. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on these 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.

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and PM_{2.5} emissions for traffic on San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue using the Caltrans version of the CARB EMFAC2021 emissions model, known as CT-EMFAC2021. CT-EMFAC2021 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, PM_{2.5} and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for PM_{2.5}. 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 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-EMFAC2021 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), Caltrans estimated local truck mix on I-280 nearest project location (3.1 percent), year of analysis (2027 construction start year), and season (annual).

In order to estimate TAC and PM_{2.5} emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEIs, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2027 (construction year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2021. Year 2027 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated.

The average daily traffic (ADT) for San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue was based on the project's traffic analysis.²⁸ Assuming a 1 percent per year increase due to overall regional growth, the calculated ADT for San Tomas Expressway was 45,634 vehicles, for Pruneridge Avenue was 12,211 vehicles, and for Saratoga Avenue was 10,769 vehicles. Hourly traffic distributions were obtained from Caltrans Performance Measurement System (PeMS). PeMS data are collected in real-time from nearly 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California.²⁹ Hourly traffic distributions for the roadways were estimated from the average distributions of traffic on northbound and southbound I-280 closest to the project site. This is the closest roadway nearby where such data exists. The

²⁸ Hexagon Transportation Consultants, Inc., *400 Saratoga Avenue Residential Development Draft Transportation Analysis*, May 2, 2025.

²⁹ <https://dot.ca.gov/programs/traffic-operations/mpr/pems-source>

average fraction of daily traffic volume each hour was calculated for I-280 and applied to the daily traffic volume on the roadways to estimate hourly traffic emission rates. A review of the traffic mix information reported by Caltrans on I-280 near the project site indicated that the traffic mix is composed of mostly light-duty vehicles with about 3.1 percent trucks, of which 1.6 percent are considered diesel heavy duty trucks and 1.5 percent are medium duty trucks.³⁰ For all hours of the day, an average speed of 45 mph on San Tomas Expressway and 30 mph on Pruneridge Avenue and Saratoga Avenue was assumed for all vehicles based on posted speed limit signs.

TAC and PM_{2.5} concentrations were developed by inputting the emissions rates into an air quality dispersion model (AERMOD). Maximum increased lifetime cancer risk and annual PM_{2.5} concentration for the roadways at the MEIs were then computed using modeled TAC and PM_{2.5} concentrations and the Air District methods and exposure parameters described in their CEQA guidance document.³¹

Dispersion Modeling

Dispersion modeling of TAC and PM_{2.5} emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the Air District for this type of analysis.³² Pollutant emissions from traffic on San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue within 1,000 feet of the project site were evaluated as RLINE sources (roadway line sources) for each opposing travel direction on the roadways. The same meteorological data used in the construction dispersion modeling were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and PM_{2.5} concentrations at the project MEIs for 2027 from traffic on the roadways were calculated using receptor heights 5 feet (1.5 meters) to represent the breathing heights on the first floor of the MEI receptors.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, PM_{2.5} concentration, and HI impacts from San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue at the off-site MEIs are shown in Table 7. Figure 2 shows the roadway links modeled and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and cancer risk calculations at the MEIs are provided in *Attachment 3*.

Bay Area Air District Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using the Air District's *Permitted Stationary Sources 2022* GIS website,³³ which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and

³⁰ Caltrans. 2025. *2022 Annual Average Daily Truck Traffic on the California State Highway System*. Web: <https://dot.ca.gov/programs/traffic-operations/census>.

³¹ Bay Area Air District, 2023. 2022 CEQA Guidelines. April.

³² Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines*, April 2023.

³³ Bay Area Air District, <https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3>

adjustments to account for OEHHA guidance. Four sources were identified using this tool; two gas dispensing facilities (GDFs) and two diesel-powered generators. The Air District GIS website provided screening risks and hazards for the diesel generators. A stationary source information request was submitted to the Air District in order to estimate health risk impacts from the GDFs.

The screening risk and hazard levels provided by the Air District for the stationary sources were adjusted for distance using the Air District's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines* and CARB's *Gasoline Station Risk Screening Tool*. The Air District provided the gasoline throughputs for each GDF near the project site.³⁴ The provided throughputs along with the distance between the MEIs and the GDF, and the region for each gas station was input into the CARB tool to calculate the cancer risk and hazard index. Health risk impacts from the stationary sources upon the MEIs are reported in Table 7.

Summary of Cumulative Health Risk Impact at the Off-Site MEIs

Table 7 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by the project (i.e., the MEIs). The project's uncontrolled health risk impacts would not exceed the Air District's single-source CEQA thresholds for cancer risks, non-cancer risks, or maximum annual PM_{2.5} concentration. Nor would the cumulative-source CEQA thresholds be exceeded.

Table 7. Cumulative Health Risk Impacts at the Project MEIs

Source	Cancer Risk ¹ (per million)	Annual PM _{2.5} ¹ (µg/m ³)	Hazard Index
Project Impacts			
Project Construction Uncontrolled	8.62 (infant)	0.06	0.01
<i>Air District Single-Source Threshold</i>	>10.0	>0.3	>1.0
Exceed Threshold? Uncontrolled	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Impacts			
San Tomas Expressway, ADT 45,634	1.93	0.07	<0.01
Pruneridge Ave, ADT 12,211	0.21	0.09	<0.01
Saratoga Ave, ADT 10,769	0.06	0.04	<0.01
Lucky #774 (Facility ID #18310, Generator), MEIs at 670 feet	<0.01	-	-
City of Santa Clara - Fire Station #4 (Facility ID #18701, Generator), MEIs at 1,175 feet.	0.09	-	-
Pruneridge Golf Club (Facility ID #108890, GDF), MEIs at 1,150 feet.	0.01	-	0.01
APRO LLC dba United Pacific #2206 AD (Facility ID #112370, GDF), MEIs at 950 feet.	0.30	-	0.03
Cumulative Total Uncontrolled	<11.23	0.26	<0.08
<i>Air District Cumulative Source Threshold</i>	>100	>0.8	>10.0
Exceed Threshold? Uncontrolled	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ¹ The maximum cancer risk and PM_{2.5} concentration occur at different receptor locations.

³⁴ Email from Bay Area Air District CEQA, April 17, 2024. Subject: "RE: Public Records Number 2024-03-0244 Stationary Source Request for 24-037 400 Saratoga Ave, Santa Clara SSIF"

Non-CEQA: On-Site Health Risk Assessment of TAC Sources - New Project Receptors

Per the City's General Plan Policy 5.10.2-P3, a health risk assessment was completed to assess the impact that the existing TAC sources would have on the new proposed sensitive receptors (residents) introduced by the project. The same existing TAC sources identified above were used.³⁵ Figure 3 shows the project site in relation to the nearby TAC sources. The on-site health risk assessment results are listed in Table 8. *Attachment 3* includes risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

Local Roadways – San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue

The roadway health risk impacts on new project residents was conducted in the same manner as described above for the off-site MEIs. However, the year 2029 (operational year) emission factors were conservatively assumed as being representative of future conditions, instead of 2027 (construction year). An analysis based on 2029 resulted in an increased ADT on San Tomas Expressway of 46,520 vehicles, on Pruneridge Avenue of 12,448 vehicles, and on Saratoga Avenue of 10,978 vehicles.

A set of receptors representing project residences were placed throughout the building and were spaced every 23 feet (7 meters). Roadway impacts were modeled at receptor heights of 5 feet (1.5 meters) and 17 feet (5.2 meters) representing sensitive receptors on the first and second floors of the building. The portions of San Tomas Expressway, Pruneridge Avenue, and Saratoga Avenue included in the modeling are shown in Figure 3 along with the project site and receptor locations where impacts were modeled.

Maximum increased cancer risks were calculated for residential exposure at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include infants through adults were assumed to be in the new apartments for 24 hours per day for 350 days per year. The maximum impacts from San Tomas Expressway occurred at a receptor on the first floor (15 feet above the ground) in the southwest corner of the building. The maximum impacts from Pruneridge Avenue and Saratoga Avenue occurred at a receptor on the first floor (15 feet above the ground) in the southeast corner of the building. Cancer risks associated with the roadways are greatest closest to the roadways and decrease with distance from the roads. The roadway impacts at the project site are shown in Table 8. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 3*.

³⁵ 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 *CBLA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself “exacerbates” such impacts.

Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the cumulative analysis. Table 8 includes the health risk screening results for the stationary source at the project site.

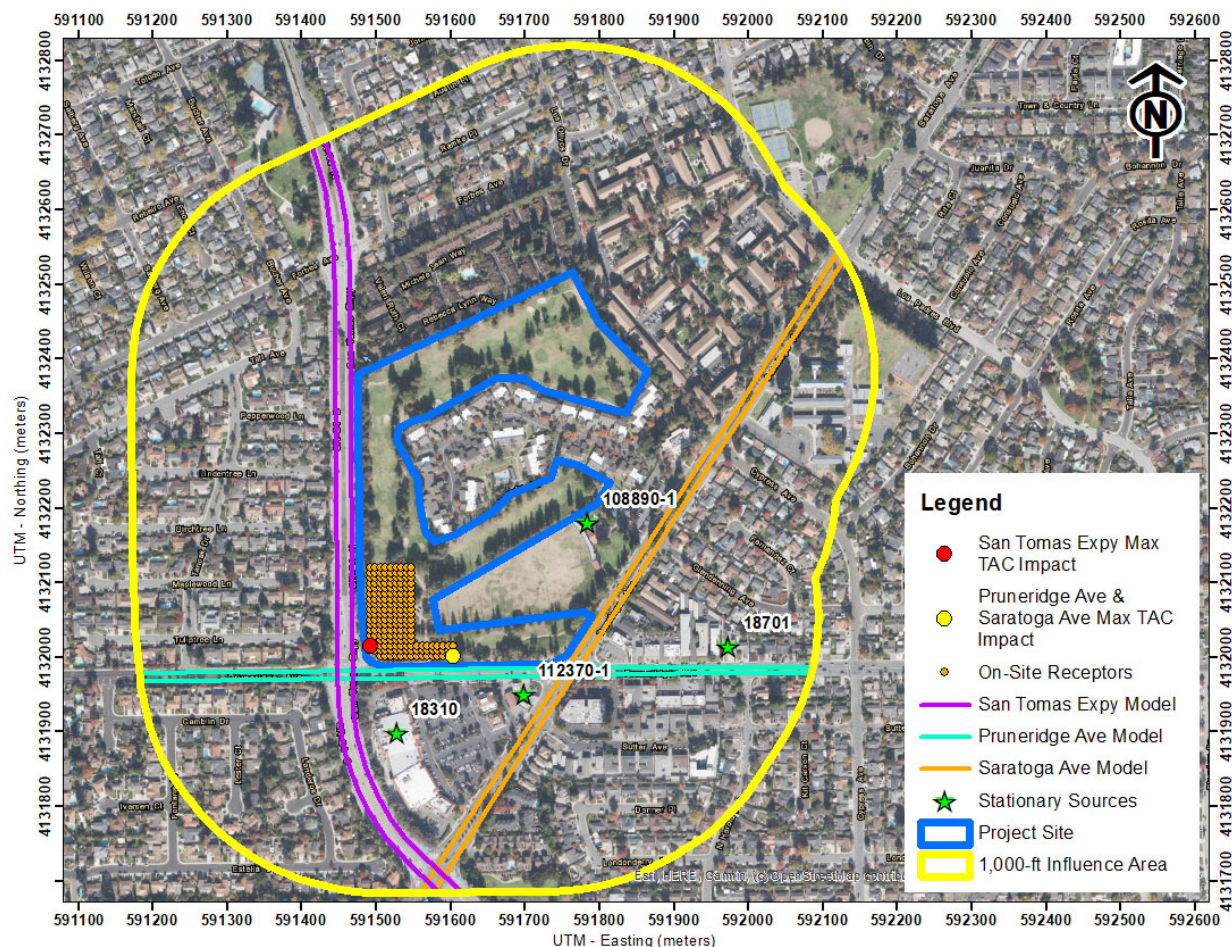
Summary of Cumulative Health Risks at the Project Site

Health 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 Air District's single-source threshold. The risks from all the sources are then combined and compared against the Air District's cumulative-source threshold. Enhanced filtration is required as part of the *2022 California Building Code (CBC), Section 160.2(C: Multi-Family Residential Air Filter Efficiency*. All apartment buildings that are four-stories and higher are required to use a filtration system with a Minimum Efficiency Reporting Value (MERV) of at least 13. As shown, with the required inclusion of MERV13 filtration, none of the single-source or cumulative-source thresholds are exceeded at the project site.

Table 8. Impacts from Nearby Sources to Project Site Receptors

Source		Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
San Tomas Expressway, ADT 46,520	Without MERV13	3.03	0.38	<0.01
	With MERV13	1.62	0.11	<0.01
Pruneridge Ave, ADT 12,448	Without MERV13	0.75	0.10	<0.01
	With MERV13	0.44	0.03	<0.01
Saratoga Ave, ADT 10,978	Without MERV13	0.15	0.02	<0.01
	With MERV13	0.08	<0.01	<0.01
Lucky #774 (Facility ID #18310, Generator), Project Site at 220 feet.		0.01	-	-
City of Santa Clara - Fire Station #4 (Facility ID #18701, Generator), Project Site at 975 feet.		0.09	-	-
Pruneridge Golf Club (Facility ID #108890-1, GDF), Project site at 560 feet.		0.03	-	0.11
APRO LLC dba United Pacific #2206 AD (Facility ID #112370-1, GDF), Project Site at 250 feet.		3.28	-	0.53
<i>Air District Single-Source Threshold</i>		>10.0	>0.3	>1.0
<i>Exceed Threshold?</i>	Without MERV13	<i>No</i>	<i>Yes</i>	<i>No</i>
	With MERV13	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Total	Without MERV13	7.34	0.50	<0.67
	With MERV13	5.55	<0.15	<0.67
<i>Air District Cumulative Source Threshold</i>		>100	>0.8	>10.0
<i>Exceed Threshold?</i>	Without MERV13	<i>No</i>	<i>No</i>	<i>No</i>
	With MERV13	<i>No</i>	<i>No</i>	<i>No</i>

Figure 3. Project Site 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 (CO₂) and water vapor but there are also several others, most importantly methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO₂, CH₄, and N₂O are byproducts of fossil fuel combustion.
- N₂O is associated with agricultural operations such as fertilization of crops.
- CH₄ 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 CO₂ 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 CO₂ equivalents (CO₂e).

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.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2022, total gross nationwide GHG emissions were 5,215.6 million metric tons (MMT) carbon dioxide equivalent (CO₂e).³⁶ 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 2020 emissions.³⁷ In 2020, GHG emissions from statewide emitting activities were 369.2 MMT CO₂e. The 2020 emissions have decreased by 25 percent since peak levels in 2004 and are 35.3 MMT CO₂e lower than 2019 emissions level and almost 62 MMT CO₂e below the State's 2020 GHG limit of 431 MMT CO₂e. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT CO₂e per person to 9.3 MT CO₂e per person in 2020.

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

³⁶ United States Environmental Protection Agency, 2022. *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020*. February. Web: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

³⁷ CARB. 2022. *California Greenhouse Gas Emission for 2000 to 2020*. Web: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf

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 85 percent below 1990 levels.

The first Scoping Plan for AB 32 was adopted by CARB in December 2008. Its most recent update was completed in December of 2022³⁸. It contains the State's main strategies to achieve carbon neutrality by 2045. This plan extends and expands upon the earlier versions with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It also takes the step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Measures to achieve carbon neutrality include rapidly moving to zero emission vehicles (ZEV), removing natural gas as an option for space conditioning, increasing the number of solar arrays and wind turbines, and scaling up renewable hydrogen for hard-to-electrify end uses.

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., ABAG and MTC) to align their regional transportation, housing, and land use plans to reduce VMT 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.

³⁸ CARB. 2022. Final 2022 Scoping Plan Update and Appendices. Web: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

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 GHG 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*.³⁹ 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 has drafted a 2022 Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 draft plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle.
- Incorporates the contribution of natural and working lands to the state's GHG emissions, as well as its role in achieving carbon neutrality.
- Relies on the most up to date science, including the need to deploy all viable tools, including carbon capture and sequestration as well as direct air capture.
- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.

The Scoping Plan was updated in 2022 and lays out how the state can get to carbon neutrality by 2045 or earlier. It is the first Scoping Plan that adds carbon neutrality as a science-based guide and touchstone beyond statutorily established emission reduction targets.⁴⁰

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 Order S-3-05. The 2022 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 to not only obtain the statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan, CARB recommends:

- VMT per capita reduced 12% below 2019 levels by 2030 and 22% below 2019 levels by

³⁹ 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

⁴⁰ <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

2045.

- 100% of Light-duty vehicle sales are zero emissions vehicles (ZEV) by 2035.
- 100% of medium duty/heavy duty vehicle sales are ZEV by 2040.
- 100% of passenger and other locomotive sales are ZEV by 2030.
- 100% of line haul locomotive sales are ZEV by 2035.
- All electric appliances in new residential and commercial building beginning 2026 (residential) and 2029 (commercial).
- 80% of residential appliance sales are electric by 2030 and 100% of residential appliance sales are electric by 2035.
- 80% of commercial appliance sales are electric by 2030 and 100% of commercial appliance sales are electric by 2045.

SB 743 Transportation Impacts

Senate Bill 743 requires lead agencies to abandon the old “level of service” metric for evaluating a project’s transportation impacts, which was based solely on the amount of delay experienced by motor vehicles. In response, the Governor’s Office of Planning and Research (OPR) developed a VMT metric that considered other factors such as reducing GHG emissions and developing multimodal transportation⁴¹. A VMT-per-capita metric was adopted into the CEQA Guidelines Section 15064.3 in November 2017. Given current baseline per-capita VMT levels computed by CARB in the 2030 Scoping Plan of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 climate goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per capita VMT as an appropriate threshold of significance for evaluating transportation impacts.

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 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 retail sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2027 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California

⁴¹ Governor’s Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

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 11.⁴² 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 (2022 California Building Standard Code) was effective as of January 1, 2023.

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 (2022 Energy Code) replaced the 2019 Energy Code as of January 1, 2023. 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 systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.⁴³

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The CalGreen 2022 standards require deployment of additional EV chargers in various building types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. The 2022 CALGreen standards include requirements for both EV readiness, installation of EV chargers, and include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions. Providing EV charging infrastructure that meets current CALGreen requirements will not be sufficient to power the anticipated more extensive level of EV penetration in the future that is needed to meet SB 30 climate goals.

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.⁴⁴ Installing new natural gas infrastructure in new buildings will interfere with this goal. To meet the State's goal, communities have been adopting "Reach" codes that prohibit natural gas connections in new and remodeled buildings.

⁴² 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.>

⁴³ See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

⁴⁴ California Energy Commission. 2021. *Final Commission Report: California Building Decarbonization Assessment*. Publication Number CEC-400-2021-006-CMF. August

Advanced Clean Cars

The Advanced Clean Cars Program, originally adopted by CARB in 2012, was designed to bring together CARB's traditional passenger vehicle requirements to meet federal air quality standards and also support California's AB 32 goals to develop and implement programs to reduce GHG emissions back down to 1990 levels by 2020, a goal achieved in 2016 as a result of numerous emissions reduction programs.

Advanced Clean Cars II (ACC II) is phase two of the original rule. ACC II establishes a year-by-year process, starting in 2026, so all new cars and light trucks sold in California will be zero-emission vehicles by 2035, including plug-in hybrid electric vehicles. The regulation codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. Currently, 16 percent of new light-duty vehicles sold in California are zero emissions or plug-in hybrids. By 2030, 68 percent of new vehicles sold in California would be zero emissions and 100 percent by 2035.

City of Santa Clara Climate Action Plan

On June 7, 2022, the City of Santa Clara adopted the 2022 Climate Action Plan (CAP).⁴⁵ It establishes revised goals and measures to reduce GHG emissions 40% by 2030, 80% by 2035, and achieve carbon neutrality by no later than 2045. The 2022 CAP aligns with all current State requirements and is assumed to be a qualified plan. A qualified CAP is one that requires future development projects that require environmental review under CEQA can streamline GHG impact analyses by demonstrating GHG reducing features are included as part of the design of the project. The CAP also includes a checklist, so that if a project aligns with the checklist items then it is in compliance with the City's CAP.

Air District GHG Significance Thresholds

On April 20, 2022, the Air District adopted new thresholds of significance for operational GHG emissions from land use projects for projects beginning the CEQA process. The following framework is how the Air District will determine GHG significance moving forward.⁴⁶ Note the Air District intends that the thresholds apply to projects that begin the CEQA process after adoption of the thresholds, unless otherwise directed by the lead agency. The new thresholds of significance are:

- A. Projects must include, at a minimum, the following project design elements:
 - a. Buildings

⁴⁵ City of Santa Clara, 2022. *City of Santa Clara Climate Action Plan*. June. Web: <https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan>

⁴⁶ Justification Report: *BAAQMD CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Project and Plans*. Web: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en>

- i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
 - ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
- b. Transportation
 - i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
 - 1. Residential Projects: 15 percent below the existing VMT per capita
 - 2. Office Projects: 15 percent below the existing VMT per employee
 - 3. Retail Projects: no net increase in existing VMT
 - ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Any new land use project would have to include either section A or B from the above list, not both, to be considered in compliance with the Air District's GHG thresholds of significance.

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, 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 Air District 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 within the construction and operational period emissions. CalEEMod output is included in *Attachment 1*.

Construction GHG Emissions

GHG emissions associated with construction were computed at 1,182 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 the Air District have an

adopted threshold of significance for construction-related GHG emissions, though the California Office of Planning and Research (OPR) recommends quantifying emissions and disclosing that GHG emissions would occur during construction, even in cases where the Air District does not. The Air District also encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable.

Operational GHG Emissions

The CalEEMod model was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. For informational purposes, annual GHG emissions resulting from operation of the proposed project in Table 9 are predicted to be 1,020 MT of CO₂e in 2029.

Table 9. Annual Project GHG Emissions (CO₂e) in Metric Tons

Source Category	Proposed Project in 2029
Mobile	926
Area	6
Energy Consumption	2
Water Usage	7
Solid Waste Generation	78
Refrigerants	<1
Total (MT CO ₂ e/year)	1,120

For this impact to be considered less than significant, it must be consistent with a local GHG reduction strategy (Threshold B) or meet the minimum project design elements recommended by the Air District (Threshold A). Threshold A is being applied to this GHG analysis since the Project requires a General Plan Amendment, and therefore, this analysis cannot rely on the use of the City of Santa Clara's qualified CAP Consistency Checklist for streamlined environmental review. However, the project would still have to be consistent with the City's CAP per the CAP Checklist.

To meet the Air District's GHG Threshold A, the project would be required to demonstrate the following:

1. Avoid construction of new natural gas connections for the residential building,
 - Conforms – According to project applicant, the project will be all electric powered and not include any new natural gas infrastructure.
2. Avoid wasteful or inefficient use of electricity,
 - Conforms – would meet CALGreen Building Standards Code requirements that are considered to be energy efficient.
3. Include electric vehicle charging infrastructure that meets current Building Code CALGreen Tier 2 compliance, and
 - Conforms – The project's parking design would meet the Tier 2 compliance standards as there would be 42 electric vehicle (EV) stalls and 166 EV ready stalls.
4. Reduce VMT per capita by 15 percent over baseline conditions.

- Conforms – the project’s VMT analysis⁴⁷ found that the project would have a less-than-significant VMT impact since VMT is forecasted at 9.47 miles per capita, which is below the threshold of 11.33 miles per capita. Therefore, the project-level VMT per capita is less than the threshold of significance that is based on SB 743.

The project is anticipated to comply with all four requirements of Threshold A.

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

The City of Santa Clara has a sustainability plan and enforces its building codes, which aim to reduce GHG emissions. Therefore, if individual projects conform to City Building Codes, they will conform with the qualified CAP that meets the State CEQA Guidelines Section 15183.5 and would not conflict with local plans, policies, or regulations applicable to GHG emissions. The proposed project would be constructed in conformance with at minimum the 2022 CalGreen and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficiency standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions. It is anticipated that the project will be consistent with the City of Santa Clara’s CAP Compliance Checklist.

Supporting Documentation

Attachment 1 includes the CalEEMod outputs for project construction and operational criteria air pollutants. Also included are any modeling assumptions.

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

Attachment 3 includes the cumulative health risk screening, modeling results, and health risk calculations from sources affecting the project MEIs and new project sensitive receptors.

⁴⁷ Hexagon Transportation Consultants, Inc., 400 Saratoga Avenue Residential Development Draft Transportation Analysis, May 2, 2025.

Attachment 1: CalEEMod Input Assumptions and Outputs

Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons				MT	
Construction Equipment						
2027	0.20	1.50	0.05	0.04	0.07	640.98
2028+2029	2.54	2.13	0.04	0.03	0.04	540.67
Total Construction Emissions						
Tons	2.74	3.63	0.08	0.08		1181.65
Average Daily Emissions						
Pounds/Workdays					Workdays	
2027	1.56	11.52	0.37	0.34		261
2028+2029	16.70	14.01	0.24	0.22		304
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	5486.59	7265.77	168.91	155.39	0.00	
Average	9.71	12.86	0.30	0.28	0.00	565.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	2.43	0.43	1.01	0.26		
Existing Use Emissions						
Total						
Net Annual Operational Emissions						
Tons/year	2.43	0.43	1.01	0.26		
Threshold - Tons/year	10.0	10.0	15.0	10.0		
Average Daily Emissions						
Pounds Per Day	13.31	2.36	5.52	1.43		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
CO2e						
Category	Project					
Mobile	925.75					
Area	6.17					
Energy	2.25					
Water	7.20					
Waste	77.99					
Refrig.	0.38					
TOTAL	1019.74	0.00	0.00	0.00		
Net GHG Emissions		1019.74		0.00		

Mitigated Construction Criteria Air Pollutants						
Mitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2027			0.01		0.07	
2028+2029			0.01		0.04	
Total Construction Emissions						
Tons	0.00	0.00	0.01	0.00		0.00

Residential Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2027	0.17	1.22	0.04	0.03	0.06	571.15
2028+2029	2.54	2.13	0.04	0.03	0.04	540.67
Total Construction Emissions						
Tons	2.71	3.35	0.07	0.07		1111.82
Pounds/Workdays	Average Daily Emissions					Workdays
2027	1.33	9.33	0.29	0.26		261
2028+2029	16.70	14.01	0.24	0.22		304
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	5425.15	6695.04	147.71	135.85	0.00	
Average	9.60	11.85	0.26	0.24	0.00	565.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Apartments Number of Days Per Year

2027	1/1/2027	12/31/27	365	261
2028+2029	1/1/28	2/28/2029	425	304
			790	565

Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2027	2/15/2027	5	32
Site Preparation	2/15/2027	3/2/2027	5	12
Grading	2/10/2027	3/10/2027	5	21
Building Constructio	5/12/2027	3/25/2028	5	228
Paving	11/1/2028	1/1/2029	5	44
Architectural Coatin	3/25/2028	2/28/2029	5	243
Trenching	3/11/2027	5/11/2027	5	44

Mitigated Construction Criteria Air Pollutants						
Mitigated Year	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
			Tons			MT
2027			Construction Equipment			
			0.01		0.06	
2028+2029			0.01		0.04	
	Total Construction Emissions					
Tons	0.00	0.00	0.01	0.00		0.00

Golf Course Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons					MT	
Construction Equipment							
2027	0.01	0.12	0.004	0.004	0.001	31.52	
2028							
	Total Construction Emissions						
Tons	0.01	0.12	0.00	0.00		31.52	
	Average Daily Emissions						
Pounds/Workdays							Workdays
2027	0.35	3.20	0.12	0.11			72
2028	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Total Construction Emissions							
Pounds	25.49	230.23	8.48	7.81		0.00	
Average	0.35	3.20	0.12	0.11		0.00	72.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			

Golf Course Number of Days Per Year			
2027	1/1/2027	4/10/2027	100
			100
			72

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2027	2/15/2027	5	32
Site Preparation	2/15/2027	3/5/2027	5	15
Grading	3/2/2027	4/10/2027	5	29

Golf Course Mitigated Construction Criteria Air Pollutants						
Mitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2027			0.001		0.001	
2028						
Total Construction Emissions						
Tons	0.00	0.00	0.00	0.00		0.00

Park Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					
Construction Equipment						
2027	0.02	0.17	0.01	0.01	0.005	38.31
2028						
Total Construction Emissions						
Tons	0.02	0.17	0.01	0.01		38.31
Average Daily Emissions						
Pounds/Workdays						Workdays
2027	1.28	12.16	0.45	0.42		28
2028	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	35.95	340.50	12.73	11.73		0.00
Average	1.28	12.16	0.45	0.42		0.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		28.00

Park Number of Days Per Year				
2027	1/1/27	2/7/27	38	28
			38	28

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2027	1/29/2027	5	20
Site Preparation	1/30/2027	2/1/2027	5	2
Grading	2/2/2027	2/7/2027	5	4

Park Mitigated Construction Criteria Air Pollutants						
Mitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					
Construction Equipment						
2027	0.004	0.04	0.001	0.001	0.005	38.31
2028						
Total Construction Emissions						
Tons	0.00	0.04	0.00	0.00		38.31

Air Quality/Noise Construction Information Data Request

Project Name: **The Greens at Prunrige Apts**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	316 Dwelling Units	3.66 total project acres disturbed
	324400 s.f. residential (Gross Residential)	
	0 s.f. retail	
	0 s.f. office/commercial	
	0 s.f. other, specify:	
	152823 s.f. parking garage	407 spaces
	0 s.f. parking lot	26 spaces
Construction Days (i.e., M-F)	Mon to Fri	
Construction Hours	7 am to 5 pm	

Pile Driving? Y/N? N

Project include on-site GENERATOR OR FIRE PUMP during project **OPERATION** (not construction)? Y/N? (TBD)

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: TBD

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition							
	Start Date:	1/1/2027		Total phase:	20			Overall Import/Export Volumes
	End Date:	2/15/2027						
1	Concrete/Industrial Saws	81	0.73	8	5	2	2365	Demolition Volume
1	Excavators	158	0.38	8	15	6	7205	Square footage of buildings to be demolished
0	Rubber-Tired Dozers	247	0.4			0	0	(or total tons to be hauled)
3	Tractors/Loaders/Backhoes	97	0.37	8	15	6	12920	4,000 square feet or
	Other Equipment?							7 Hauling volume (tons)
						subtotal	22490.4	Any pavement demolished and hauled? 11 tons
	Site Preparation							
	Start Date:	2/15/2027		Total phase:	15			
	End Date:	3/2/2027						
0	Graders	187	0.41			0	0	
0	Rubber Tired Dozers	247	0.4			0	0	
2	Tractors/Loaders/Backhoes	97	0.37	8	15	8	8614	
	Other Equipment?						8613.6	
	Grading / Excavation							
	Start Date:	2/10/2027		Total phase:	50			
	End Date:	3/10/2027						
1	Excavators	158	0.38	8	20	3.2	9606	Soil Hauling Volume
1	Graders	187	0.41	8	15	2.4	9200	Export volume = 2,000 cubic yards or less
0	Rubber Tired Dozers	247	0.4			0	0	Import volume = 1000 cubic yards
1	Concrete/Industrial Saws	50	0.73	8	5	0.8	1460	
3	Tractors/Loaders/Backhoes	97	0.37	8	30	4.8	25841	
	Other Equipment?						46107.6	
	Trenching/Foundation							
	Start Date:	3/11/2027		Total phase:	100			
	End Date:	5/11/2027						
1	Tractor/Loader/Backhoe	97	0.37	8	50	4	14356	
1	Excavators	158	0.38	8	40	3.2	19213	
	Other Equipment?						33568.8	
	Building - Exterior							
	Start Date:	5/12/2027		Total phase:	320			Assumes 15,000 CY of concrete
	End Date:	3/25/2028						Cement Trucks? 1,666 Total Round-Trips
2	Cranes	231	0.29	8	240	6	257242	Electric? (Y/N) Y Otherwise assumed diesel
2	Forklifts	89	0.2	4	240	3	34176	Liquid Propane (LPG)? (Y/N) N Otherwise Assumed diesel
4	Generator Sets	84	0.74	8	280	6.5	517171	Or temporary line power? (Y/N) Y, Both
4	Tractors/Loaders/Backhoes	97	0.37	4	160	2	91878	
3	Welders	46	0.45	8	20	0.5	9936	
2	Cement Mixers	9	0.56	8	120	3	9677	
							920080	
	Building - Interior/Architectural Coating							
	Start Date:	3/25/2028		Total phase:	320			
	End Date:	2/28/2029						
10	Air Compressors	78	0.48	8	250	6.25	748800	
8	Aerial Lift	62	0.31	8	300	7.5	369024	
	Other Equipment?						1117824	
	Paving							
	Start Date:	11/1/2028		Total phase:	10			
	Start Date:	1/1/2029						
0	Cement and Mortar Mixers	9	0.56			0	0	Asphalt? 440 cubic yards or ____ round trips?
1	Pavers	130	0.42	8	3	2.4	1310	
1	Paving Equipment	132	0.36	8	3	2.4	1140	
1	Rollers	80	0.38	8	6	4.8	1459	
1	Tractors/Loaders/Backhoes	97	0.37	8	6	4.8	1723	
	Other Equipment?						5632.8	
	Additional Phases							
	Start Date:			Total phase:			2154317.2	
	Start Date:							
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading.
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Pruneridge Golf Course Renovation

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	0 Dwelling Units	17.15 total project acres disturbed
	0 s.f. residential (Gross Residential)	
	0 s.f. retail	
	0 s.f. office/commercial	
	744,000 s.f. other, specify:	Turf, Irrigation, Minor grading
	0 s.f. parking garage	spaces
	0 s.f. parking lot	spaces
Construction Days (i.e., M-F)	Mon to Fri	
Construction Hours	7 am to 5 pm	

Pile Driving? Y/N? N

Project include on-site GENERATOR OR FIRE PUMP during project **OPERATION** (not construction)? Y/N? _N/A_

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ___TBD___

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition							
	Start Date:	1/1/2027		Total phase:	45			Overall Import/Export Volumes
	End Date:	2/15/2027						
1	Concrete/Industrial Saws	81	0.73	4	5	0.44444444	1183	Demolition Volume
0	Excavators	158	0.38			0	0	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	247	0.4	6	15	2	8892	(or total tons to be hauled)
3	Tractors/Loaders/Backhoes	97	0.37	6	15	2	9690	9 square feet or
	Other Equipment?					subtotal	19764.9	7 Hauling volume (tons)
								Any pavement demolished and hauled? <u>N/A</u>
	Site Preparation							
	Start Date:	2/15/2027		Total phase:	15			Cement Trucks? (10) Total Round-Trips
	End Date:	3/2/2027						
0	Graders	187	0.41			0	0	
0	Rubber Tired Dozers	247	0.4			0	0	
2	Tractors/Loaders/Backhoes	97	0.37	8	15	8	8614	
	Other Equipment?						8613.6	
	Grading / Excavation							
	Start Date:	3/2/2027		Total phase:	45			Soil Hauling Volume
	End Date:	4/10/2027						Export volume = 0 cubic yards or less
0	Excavators	158	0.38			0	0	Import volume = 1000 cubic yards
1	Graders	187	0.41	8	25	4.44444444	15334	
0	Rubber Tired Dozers	247	0.4			0	0	
0	Concrete/Industrial Saws	50	0.73			0	0	
3	Tractors/Loaders/Backhoes	97	0.37	8	30	5.33333333	25841	
	Other Equipment?						41174.8	
	Trenching/Foundation							
	Start Date:			Total phase:				
	End Date:							
	Tractor/Loader/Backhoe	97	0.37			#DIV/0!	0	
	Excavators	158	0.38			#DIV/0!	0	
	Other Equipment?						0	
	Building - Exterior							
	Start Date:			Total phase:	1			
	End Date:							
	Cranes	231	0.29			0	0	Electric? (Y/N) <u>N</u> Otherwise assumed diesel
	Forklifts	89	0.2			0	0	Liquid Propane (LPG)? (Y/N) <u>N</u> Otherwise Assumed diesel
	Generator Sets	84	0.74			0	0	Or temporary line power? (Y/N) <u>N</u>
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Welders	46	0.45			0	0	
	Cement Mixers	9	0.56	8	1	8	0	
							0	
	Building - Interior/Architectural Coating							
	Start Date:			Total phase:	1			
	End Date:							
	Air Compressors	78	0.48			0	0	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?						0	
	Paving							
	Start Date:			Total phase:	1			
	Start Date:							
	Cement and Mortar Mixers	9	0.56			0	0	Asphalt? N/A cubic yards or ____ round trips?
	Pavers	130	0.42			0	0	
	Paving Equipment	132	0.36			0	0	
	Rollers	80	0.38			0	0	
	Water Trucks	97	0.37			0	0	
	Other Equipment?						0	
	Additional Phases							
	Start Date:	4/10/2027		Total phase:	30		76753	
	End Date:							
	Grow-In Period	Start Date:	11/10/2027					
2	Mowers/Landscape Ride-on	50	0.40	6	30	6	7200	
						0	0	
						0	0	
						0	0	
						0	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: **Pruneridge Public Park Dedication DEFAULTS**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	0 Dwelling Units	1.77 total project acres disturbed
	0 s.f. residential (Gross Residential)	
	0 s.f. retail	
	0 s.f. office/commercial	
	77,140 s.f. other, specify: Public Park	
	0 s.f. parking garage	spaces
	0 s.f. parking lot	spaces
Construction Days (i.e., M-F)	Mon to Fri	
Construction Hours	7 am to 5 pm	

Pile Driving? Y/N? N

Project include on-site GENERATOR OR FIRE PUMP during project **OPERATION** (not construction)? Y/N? _N/A_

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: __NA__

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	Start Date:	1/1/2027	Total phase:	20			Overall Import/Export Volumes
		End Date:	1/29/2027					
1	Concrete/Industrial Saws	81	0.73	8	20	8	9461	
0	Excavators	158	0.38			0	0	
1	Rubber-Tired Dozers	247	0.4	8	20	8	15808	
3	Tractors/Loaders/Backhoes	97	0.37	8	20	8	17227	
	Other Equipment?					subtotal	42496	
	Site Preparation	Start Date:	1/30/2027	Total phase:	2			
		End Date:	2/1/2027					
1	Graders	187	0.41	8	2	8	1227	
1	Rubber Tired Dozers	247	0.4	7	2	7	1383	
1	Tractors/Loaders/Backhoes	97	0.37	8	2	8	574	
	Other Equipment?						3184	
	Grading / Excavation	Start Date:	2/2/2027	Total phase:	4			
		End Date:	2/7/2027					
0	Excavators	158	0.38			0	0	
1	Graders	187	0.41	8	4	8	2453	
1	Rubber Tired Dozers	247	0.4	8	4	8	3162	
0	Concrete/Industrial Saws	50	0.73			0	0	
2	Tractors/Loaders/Backhoes	97	0.37	7	4	7	2010	
	Other Equipment?						7625	
	Trenching/Foundation	Start Date:		Total phase:				
		End Date:						
	Tractor/Loader/Backhoe	97	0.37			#DIV/0!	0	
	Excavators	158	0.38			#DIV/0!	0	
	Other Equipment?						0	
	Building - Exterior	Start Date:		Total phase:				
		End Date:						
	Cranes	231	0.29			#DIV/0!	0	
	Forklifts	89	0.2			#DIV/0!	0	
	Generator Sets	84	0.74			#DIV/0!	0	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Welders	46	0.45			#DIV/0!	0	
	Cement Mixers	9	0.56			#DIV/0!	0	
							0	
	Building - Interior/Architectural Coating	Start Date:		Total phase:				
		End Date:						
	Air Compressors	78	0.48			#DIV/0!	0	
	Aerial Lift	62	0.31			#DIV/0!	0	
	Other Equipment?						0	
	Paving	Start Date:		Total phase:				
		Start Date:						
	Cement and Mortar Mixers	9	0.56			#DIV/0!	0	
	Pavers	130	0.42			#DIV/0!	0	
	Paving Equipment	132	0.36			#DIV/0!	0	
	Rollers	80	0.38			#DIV/0!	0	
	Water Trucks	97	0.37			#DIV/0!	0	
	Other Equipment?						0	
	Additional Phases	Start Date:		Total phase:			53305	
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Table 5
Project Trip Generation Estimates

Source: ITE Trip Generation Manual, 11th Edition, 2021.

Notes:

1. Average trip rates expressed in trips per dwelling unit for Mid-Rise Multifamily Housing (Land Use 221) are used.
2. Per the Santa Clara Climate Action Plan (CAP), a minimum 10% trip reduction is required from TDM for residential developments.
3. It is unknown what facilities/programs would be provided in the park. The trips are conservatively estimated based on the average trip rates expressed in trips per field for Soccer Complex (Land Use 488).

24-037 400 Saratoga Ave/Pruneridge Apartments, Santa Clara BMPs T4 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga Ave/Pruneridge Apartments, Santa Clara BMPs T4
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	316	Dwelling Unit	3.66	324,400	0.00	—	945	—

Enclosed Parking with Elevator	407	Space	0.00	152,823	0.00	—	—	—
Parking Lot	26.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-1-A	Use Electric or Hybrid Powered Equipment
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	20.4	13.9	0.40	3.02	3.42	0.37	0.73	1.11	7,112
Mit.	19.3	12.0	0.05	3.02	3.07	0.05	0.73	0.78	5,285
% Reduced	5%	14%	87%	—	10%	86%	—	29%	26%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	22.2	26.4	0.58	3.50	4.08	0.52	0.85	1.37	9,778
Mit.	20.2	16.2	0.09	3.50	3.60	0.08	0.85	0.93	7,950
% Reduced	9%	39%	84%	—	12%	84%	—	32%	19%
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	11.6	10.1	0.20	1.41	1.62	0.19	0.34	0.53	3,450
Mit.	10.8	7.49	0.03	1.41	1.44	0.03	0.34	0.37	2,620
% Reduced	6%	26%	83%	—	11%	83%	—	31%	24%

Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.11	1.84	0.04	0.26	0.30	0.03	0.06	0.10	571
Mit.	1.98	1.37	0.01	0.26	0.26	0.01	0.06	0.07	434
% Reduced	6%	26%	83%	—	11%	83%	—	31%	24%

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	1.96	12.8	0.40	3.02	3.42	0.37	0.73	1.11	7,112
2028	20.4	13.9	0.20	0.48	0.68	0.18	0.11	0.30	2,982
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	1.93	13.1	0.40	3.02	3.42	0.37	0.73	1.11	6,925
2028	22.2	26.4	0.58	3.50	4.08	0.52	0.85	1.37	9,778
2029	20.5	16.5	0.24	0.76	1.00	0.22	0.19	0.41	4,186
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.95	6.67	0.20	1.41	1.62	0.19	0.34	0.53	3,450
2028	11.6	10.1	0.18	0.79	0.97	0.16	0.19	0.35	2,923
2029	2.34	1.60	0.02	0.06	0.07	0.02	0.01	0.03	343
Annual	—	—	—	—	—	—	—	—	—
2027	0.17	1.22	0.04	0.26	0.30	0.03	0.06	0.10	571
2028	2.11	1.84	0.03	0.14	0.18	0.03	0.03	0.06	484
2029	0.43	0.29	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	56.8

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.96	4.02	0.05	3.02	3.07	0.05	0.73	0.78	5,285
2028	19.3	12.0	0.04	0.48	0.53	0.04	0.11	0.16	2,984
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.93	4.27	0.06	3.02	3.07	0.06	0.73	0.78	5,097
2028	20.2	16.2	0.09	3.50	3.60	0.08	0.85	0.93	7,950
2029	19.4	13.5	0.06	0.76	0.82	0.06	0.19	0.25	4,186
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.45	2.22	0.03	1.41	1.44	0.03	0.34	0.37	2,614
2028	10.8	7.49	0.03	0.79	0.82	0.03	0.19	0.22	2,620
2029	2.23	1.39	0.01	0.06	0.06	0.01	0.01	0.02	343
Annual	—	—	—	—	—	—	—	—	—
2027	0.08	0.41	0.01	0.26	0.26	< 0.005	0.06	0.07	433
2028	1.98	1.37	0.01	0.14	0.15	0.01	0.03	0.04	434
2029	0.41	0.25	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	56.8

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Off-Road Equipment	0.33	3.20	0.09	—	0.09	0.08	—	0.08	823
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.01	—	0.01	0.01	—	0.01	72.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.77
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.62

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	1.11	0.02	—	0.02	0.02	—	0.02	823
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	72.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.77
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.62

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.98	0.06	—	0.06	0.05	—	0.05	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.17
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2027) - Mitigated

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

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

Off-Road Equipment	0.05	0.29	0.01	—	0.01	0.01	—	0.01	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.17
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	2.99	0.11	—	0.11	0.10	—	0.10	777
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.01	—	0.01	0.01	—	0.01	44.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.40
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.12	0.12	0.00	0.03	0.03	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.57	0.02	0.33	0.35	0.02	0.09	0.11	1,286
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	< 0.005	0.01	0.01	74.0
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.3

3.6. Grading (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	0.01	—	0.01	0.01	—	0.01	777
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	44.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.40
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.12	0.12	0.00	0.03	0.03	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.57	0.02	0.33	0.35	0.02	0.09	0.11	1,286
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	< 0.005	0.01	0.01	74.0
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.3

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	9.48	0.37	—	0.37	0.34	—	0.34	2,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	9.48	0.37	—	0.37	0.34	—	0.34	2,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	4.34	0.17	—	0.17	0.16	—	0.16	1,061
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.79	0.03	—	0.03	0.03	—	0.03	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.81	0.61	0.00	2.41	2.41	0.00	0.57	0.57	2,445
Vendor	0.05	1.85	0.02	0.41	0.44	0.02	0.11	0.14	1,601
Hauling	0.02	0.86	0.01	0.19	0.20	0.01	0.05	0.06	750
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.78	0.72	0.00	2.41	2.41	0.00	0.57	0.57	2,260

Vendor	0.05	1.94	0.02	0.41	0.44	0.02	0.11	0.14	1,599
Hauling	0.02	0.91	0.01	0.19	0.20	0.01	0.05	0.06	749
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.35	0.32	0.00	1.08	1.08	0.00	0.25	0.25	1,048
Vendor	0.02	0.87	0.01	0.19	0.20	0.01	0.05	0.06	733
Hauling	0.01	0.41	< 0.005	0.09	0.09	< 0.005	0.02	0.03	343
Annual	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.00	0.20	0.20	0.00	0.05	0.05	173
Vendor	< 0.005	0.16	< 0.005	0.03	0.04	< 0.005	0.01	0.01	121
Hauling	< 0.005	0.07	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	56.8

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.01	—	0.01	0.01	—	0.01	223
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	37.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.81	0.61	0.00	2.41	2.41	0.00	0.57	0.57	2,445
Vendor	0.05	1.85	0.02	0.41	0.44	0.02	0.11	0.14	1,601
Hauling	0.02	0.86	0.01	0.19	0.20	0.01	0.05	0.06	750
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.78	0.72	0.00	2.41	2.41	0.00	0.57	0.57	2,260
Vendor	0.05	1.94	0.02	0.41	0.44	0.02	0.11	0.14	1,599
Hauling	0.02	0.91	0.01	0.19	0.20	0.01	0.05	0.06	749
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.35	0.32	0.00	1.08	1.08	0.00	0.25	0.25	1,048
Vendor	0.02	0.87	0.01	0.19	0.20	0.01	0.05	0.06	733
Hauling	0.01	0.41	< 0.005	0.09	0.09	< 0.005	0.02	0.03	343
Annual	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.00	0.20	0.20	0.00	0.05	0.05	173
Vendor	< 0.005	0.16	< 0.005	0.03	0.04	< 0.005	0.01	0.01	121
Hauling	< 0.005	0.07	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	56.8

3.9. Building Construction (2028) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06	9.00	0.35	—	0.35	0.32	—	0.32	2,317
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.50	0.06	—	0.06	0.05	—	0.05	385
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.01	—	0.01	0.01	—	0.01	63.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.75	0.71	0.00	2.41	2.41	0.00	0.57	0.57	2,222
Vendor	0.05	1.85	0.02	0.41	0.44	0.01	0.11	0.13	1,558
Hauling	0.01	0.88	0.01	0.19	0.20	0.01	0.05	0.06	730
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.00	0.39	0.39	0.00	0.09	0.09	374
Vendor	0.01	0.30	< 0.005	0.07	0.07	< 0.005	0.02	0.02	259
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	122
Annual	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.07	0.07	0.00	0.02	0.02	61.9
Vendor	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.9
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	20.1

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	81.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.75	0.71	0.00	2.41	2.41	0.00	0.57	0.57	2,222
Vendor	0.05	1.85	0.02	0.41	0.44	0.01	0.11	0.13	1,558
Hauling	0.01	0.88	0.01	0.19	0.20	0.01	0.05	0.06	730
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.00	0.39	0.39	0.00	0.09	0.09	374
Vendor	0.01	0.30	< 0.005	0.07	0.07	< 0.005	0.02	0.02	259

Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	122
Annual	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.07	0.07	0.00	0.02	0.02	61.9
Vendor	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.9
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	20.1

3.11. Paving (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.82	0.06	—	0.06	0.06	—	0.06	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	53.1
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.79
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	76.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.90	0.01	0.20	0.21	0.01	0.05	0.06	744
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	< 0.005	0.02	0.02	< 0.005	0.01	0.01	88.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	14.7

3.12. Paving (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.57	0.01	—	0.01	0.01	—	0.01	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	53.1
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.79
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	76.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.90	0.01	0.20	0.21	0.01	0.05	0.06	744
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	< 0.005	0.02	0.02	< 0.005	0.01	0.01	88.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	14.7

3.13. Paving (2029) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.78	0.06	—	0.06	0.05	—	0.05	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.87
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.14
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.08	0.08	0.00	0.02	0.02	74.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.87	0.01	0.20	0.21	0.01	0.05	0.06	723
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.42

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.23

3.14. Paving (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.57	0.01	—	0.01	0.01	—	0.01	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.87
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.14
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.08	0.08	0.00	0.02	0.02	74.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.87	0.01	0.20	0.21	0.01	0.05	0.06	723
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.42
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.23

3.15. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	13.8	0.20	—	0.20	0.18	—	0.18	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	13.8	0.20	—	0.20	0.18	—	0.18	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.63	0.11	—	0.11	0.10	—	0.10	1,383
Architectural Coatings	10.4	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.39	0.02	—	0.02	0.02	—	0.02	229
Architectural Coatings	1.89	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.16	0.11	0.00	0.48	0.48	0.00	0.11	0.11	476
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.00	0.48	0.48	0.00	0.11	0.11	444
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.00	0.26	0.26	0.00	0.06	0.06	248
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.05	0.05	0.00	0.01	0.01	41.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	6.58	0.02	—	0.02	0.02	—	0.02	1,383
Architectural Coatings	10.4	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.20	< 0.005	—	< 0.005	< 0.005	—	< 0.005	229
Architectural Coatings	1.89	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.16	0.11	0.00	0.48	0.48	0.00	0.11	0.11	476
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.00	0.48	0.48	0.00	0.11	0.11	444
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.00	0.26	0.26	0.00	0.06	0.06	248
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.05	0.05	0.00	0.01	0.01	41.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2029) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	13.7	0.17	—	0.17	0.16	—	0.16	2,506

Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.58	0.02	—	0.02	0.02	—	0.02	289
Architectural Coatings	2.17	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.29	< 0.005	—	< 0.005	< 0.005	—	< 0.005	47.9
Architectural Coatings	0.40	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.00	0.48	0.48	0.00	0.11	0.11	437
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.05	0.05	0.00	0.01	0.01	51.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.38	0.01	—	0.01	0.01	—	0.01	289
Architectural Coatings	2.17	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.25	< 0.005	—	< 0.005	< 0.005	—	< 0.005	47.9
Architectural Coatings	0.40	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.00	0.48	0.48	0.00	0.11	0.11	437

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.05	0.05	0.00	0.01	0.01	51.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Trenching (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.02	—	0.02	0.02	—	0.02	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.02	—	0.02	0.02	—	0.02	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	41.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Trenching (2027) - Mitigated

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

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

Off-Road Equipment	0.02	0.34	< 0.005	—	< 0.005	< 0.005	—	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.34	< 0.005	—	< 0.005	< 0.005	—	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	41.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	2/15/2027	5.00	32.0	—
Site Preparation	Site Preparation	2/15/2027	3/2/2027	5.00	12.0	—
Grading	Grading	2/10/2027	3/10/2027	5.00	21.0	—
Building Construction	Building Construction	5/12/2027	3/25/2028	5.00	228	—
Paving	Paving	11/1/2028	1/1/2029	5.00	44.0	—
Architectural Coating	Architectural Coating	3/25/2028	2/28/2029	5.00	243	—
Trenching	Trenching	3/11/2027	5/11/2027	5.00	44.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73
Demolition	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	3.20	36.0	0.38
Grading	Graders	Diesel	Average	1.00	2.40	148	0.41
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	4.80	84.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Average	1.00	0.80	33.0	0.73

Building Construction	Cranes	Diesel	Average	2.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	3.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	4.00	6.50	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	4.00	2.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	0.50	46.0	0.45
Building Construction	Cement and Mortar Mixers	Diesel	Average	2.00	3.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	2.40	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	2.40	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	4.80	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	4.80	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	10.0	6.25	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	8.00	7.50	46.0	0.31
Trenching	Tractors/Loaders/Back hoes	Diesel	Average	1.00	4.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	3.20	36.0	0.38

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	2.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	3.20	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	2.40	148	0.41

Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	4.80	84.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	0.80	33.0	0.73
Building Construction	Cranes	Electric	Average	2.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	3.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	4.00	6.50	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	2.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	0.50	46.0	0.45
Building Construction	Cement and Mortar Mixers	Diesel	Average	2.00	3.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Final	1.00	2.40	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	2.40	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	1.00	4.80	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	4.80	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	10.0	6.25	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Final	8.00	7.50	46.0	0.31
Trenching	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	4.00	84.0	0.37
Trenching	Excavators	Diesel	Tier 4 Final	1.00	3.20	36.0	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT

Demolition	Hauling	1.55	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	17.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	292	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	58.8	8.40	HHDT,MHDT
Building Construction	Hauling	10.4	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	10.6	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	58.3	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	1.55	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	17.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	292	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	58.8	8.40	HHDT,MHDT
Building Construction	Hauling	10.4	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	10.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	10.6	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	58.3	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	656,910	218,970	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	4,000	—
Site Preparation	—	—	0.00	0.00	—
Grading	1,000	2,000	3.15	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Enclosed Parking with Elevator	0.00	100%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005
2028	0.00	387	0.03	< 0.005
2029	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6

Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6
Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—

Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155
Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2

Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5

Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	SVP 2023 residential rate = 0 lb/MWh.
Land Use	Total lot acreage, square footages, and number of parking spaces and units provided by filled out construction worksheet.

Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by filled out construction worksheet.
Construction: Trips and VMT	Demolition = 11 tons of pavement demo'ed and hauled (0.11 trips/day), Building Construction = 1,666 concrete truck round trips (10.4 trips/day), Paving = 440-cy of asphalt (10.6 trips/day).
Construction: On-Road Fugitive Dust	Air District BMPs 15 mph. Required by Santa Clara GP.
Operations: Hearths	No hearths.
Operations: Energy Use	All-electric according to applicant.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga Ave/Pruneridge Golf Course Renovation BMPs T4 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga Ave/Pruneridge Golf Course Renovation BMPs T4
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Golf Course	17.1	Acre	17.1	0.00	744,000	744,000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

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

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.40	3.69	0.14	0.28	0.42	0.13	0.05	0.18	1,287
Mit.	0.12	0.82	0.02	0.28	0.30	0.02	0.05	0.07	1,287
% Reduced	71%	78%	85%	—	28%	84%	—	59%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.61	5.82	0.20	0.34	0.54	0.18	0.07	0.25	1,996
Mit.	0.19	1.25	0.03	0.34	0.38	0.03	0.07	0.10	1,996
% Reduced	69%	79%	84%	—	31%	82%	—	59%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.63	0.02	0.03	0.06	0.02	0.01	0.03	190
Mit.	0.02	0.11	< 0.005	0.03	0.04	< 0.005	0.01	0.01	190
% Reduced	72%	82%	87%	—	36%	86%	—	65%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.12	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	31.5
Mit.	< 0.005	0.02	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	31.5
% Reduced	72%	82%	87%	—	36%	86%	—	65%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.40	3.69	0.14	0.28	0.42	0.13	0.05	0.18	1,287
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.61	5.82	0.20	0.34	0.54	0.18	0.07	0.25	1,996
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.07	0.63	0.02	0.03	0.06	0.02	0.01	0.03	190
Annual	—	—	—	—	—	—	—	—	—
2027	0.01	0.12	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	31.5

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.12	0.82	0.02	0.28	0.30	0.02	0.05	0.07	1,287
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.19	1.25	0.03	0.34	0.38	0.03	0.07	0.10	1,996
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.02	0.11	< 0.005	0.03	0.04	< 0.005	0.01	0.01	190
Annual	—	—	—	—	—	—	—	—	—
2027	< 0.005	0.02	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	31.5

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.82	0.11	—	0.11	0.10	—	0.10	577
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	50.6
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.37
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.33	0.01	—	0.01	0.01	—	0.01	577
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	50.6
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.37
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

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

Off-Road Equipment	0.19	1.98	0.06	—	0.06	0.05	—	0.05	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.96
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	< 0.005	0.02	0.03	< 0.005	0.01	0.01	93.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.85

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.64

3.4. Site Preparation (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.29	0.01	—	0.01	0.01	—	0.01	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.96
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.04	0.04	0.00	0.01	0.01	38.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	< 0.005	0.02	0.03	< 0.005	0.01	0.01	93.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.85
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.64

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.31	0.13	—	0.13	0.12	—	0.12	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.31	0.13	—	0.13	0.12	—	0.12	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.01	—	0.01	0.01	—	0.01	70.9
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	83.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.36	< 0.005	0.08	0.08	< 0.005	0.02	0.03	311
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	77.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.38	< 0.005	0.08	0.08	< 0.005	0.02	0.03	310

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.7
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.08

3.6. Grading (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	70.9
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	83.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.36	< 0.005	0.08	0.08	< 0.005	0.02	0.03	311
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	77.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.38	< 0.005	0.08	0.08	< 0.005	0.02	0.03	310
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.7
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.08

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	2/15/2027	5.00	32.0	—
Site Preparation	Site Preparation	2/15/2027	3/5/2027	5.00	15.0	—
Grading	Grading	3/2/2027	4/10/2027	5.00	29.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	0.40	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	2.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	2.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	4.40	148	0.41
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	5.30	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	0.40	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	2.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	2.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	4.40	148	0.41

Grading	Tractors/Loaders/Back	Diesel	Tier 4 Final	3.00	5.30	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	1.30	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	4.31	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	1.30	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	4.31	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	0.00	0.00	—
Grading	1,000	—	7.98	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Golf Course	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6
Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6

Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—
Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155

Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2
Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6

Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5
Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by applicant in filled out construction worksheet.
Construction: Trips and VMT	Site Preparation = 10 concrete truck round trips (1.3 trips/day).
Construction: On-Road Fugitive Dust	Air District BMPs = 15 mph required by Santa Clara general plan.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga/Pruneridge Park BMPs T4 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga/Pruneridge Park BMPs T4
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
City Park	1.77	Acre	1.77	0.00	77,140	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

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

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.49	17.7	0.59	4.02	4.61	0.55	1.67	2.23	7,041
Mit.	0.35	6.71	0.10	4.02	4.12	0.10	1.67	1.78	7,041
% Reduced	77%	62%	83%	—	11%	82%	—	20%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.93	0.03	0.06	0.10	0.03	0.03	0.06	231
Mit.	0.02	0.20	< 0.005	0.06	0.07	< 0.005	0.03	0.03	231
% Reduced	79%	78%	89%	—	32%	88%	—	49%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.17	0.01	0.01	0.02	0.01	< 0.005	0.01	38.3
Mit.	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	38.3
% Reduced	79%	78%	89%	—	32%	88%	—	49%	—

2.2. Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	1.49	17.7	0.59	4.02	4.61	0.55	1.67	2.23	7,041
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.10	0.93	0.03	0.06	0.10	0.03	0.03	0.06	231
Annual	—	—	—	—	—	—	—	—	—
2027	0.02	0.17	0.01	0.01	0.02	0.01	< 0.005	0.01	38.3

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.35	6.71	0.10	4.02	4.12	0.10	1.67	1.78	7,041
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.02	0.20	< 0.005	0.06	0.07	< 0.005	0.03	0.03	231
Annual	—	—	—	—	—	—	—	—	—
2027	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	38.3

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	12.4	0.47	—	0.47	0.43	—	0.43	2,502
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.68	0.03	—	0.03	0.02	—	0.02	137
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.7
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.27	0.05	—	0.05	0.05	—	0.05	2,502
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	137
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.7
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.00	0.10	0.10	0.00	0.02	0.02	96.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.4	0.47	—	0.47	0.43	—	0.43	2,072
Dust From Material Movement	—	—	—	2.44	2.44	—	1.17	1.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.4

Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.88
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	58.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2027) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.01	0.04	—	0.04	0.04	—	0.04	2,072
Dust From Material Movement	—	—	—	2.44	2.44	—	1.17	1.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.4
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.88
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	58.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37	12.2	0.54	—	0.54	0.50	—	0.50	2,464
Dust From Material Movement	—	—	—	2.78	2.78	—	1.34	1.34	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.13	0.01	—	0.01	0.01	—	0.01	27.0
Dust From Material Movement	—	—	—	0.03	0.03	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	77.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	5.49	0.06	1.16	1.21	0.06	0.32	0.37	4,500
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.17

3.6. Grading (2027) - Mitigated

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

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

Off-Road Equipment	0.23	1.20	0.05	—	0.05	0.05	—	0.05	2,464
Dust From Material Movement	—	—	—	2.78	2.78	—	1.34	1.34	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	27.0
Dust From Material Movement	—	—	—	0.03	0.03	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.08	0.08	0.00	0.02	0.02	77.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	5.49	0.06	1.16	1.21	0.06	0.32	0.37	4,500
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.3

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.17

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	1/29/2027	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2027	2/1/2027	5.00	2.00	—
Grading	Grading	2/2/2027	2/7/2027	5.00	4.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	7.00	84.0	0.37

5.2.2. Mitigated

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

Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2

Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	62.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	62.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	1.88	0.00	—
Grading	1,000	1,000	4.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6

Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6
Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—

Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155
Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2

Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5

Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	PD/plans - 1.77-acre public park dedication
Construction: Construction Phases	Public park only - demo, site prep, grading, no building const or paving.
Construction: On-Road Fugitive Dust	Air District BMPs = 15mph

Characteristics: Utility Information	—
Operations: Vehicle Data	Provided trip gen with reduction adjustments.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga Ave/Pruneridge 2029 Operational Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga Ave/Pruneridge 2029 Operational
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	316	Dwelling Unit	3.66	324,400	0.00	—	945	—

Enclosed Parking with Elevator	407	Space	0.00	152,823	0.00	—	—	—
Parking Lot	26.0	Space	0.00	0.00	0.00	—	—	—
Golf Course	17.1	Acre	17.1	0.00	744,000	744,000	—	—
City Park	1.77	Acre	1.77	0.00	77,140	77,140	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	15.3	2.52	0.06	6.29	6.35	0.05	1.59	1.64	7,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	12.5	2.68	0.04	6.29	6.33	0.03	1.59	1.63	6,762
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	13.3	2.36	0.04	5.48	5.52	0.04	1.39	1.43	6,159
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.43	0.43	0.01	1.00	1.01	0.01	0.25	0.26	1,020

2.5. Operations Emissions by Sector, Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	3.96	2.29	0.04	6.29	6.33	0.03	1.59	1.63	6,622
Area	11.3	0.22	0.02	—	0.02	0.02	—	0.02	75.5
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	13.6
Water	—	—	—	—	—	—	—	—	43.5
Waste	—	—	—	—	—	—	—	—	471
Refrig.	—	—	—	—	—	—	—	—	2.32
Total	15.3	2.52	0.06	6.29	6.35	0.05	1.59	1.64	7,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	3.79	2.68	0.04	6.29	6.33	0.03	1.59	1.63	6,232
Area	8.66	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	13.6
Water	—	—	—	—	—	—	—	—	43.5
Waste	—	—	—	—	—	—	—	—	471
Refrig.	—	—	—	—	—	—	—	—	2.32
Total	12.5	2.68	0.04	6.29	6.33	0.03	1.59	1.63	6,762
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	3.34	2.25	0.03	5.48	5.51	0.03	1.39	1.42	5,592
Area	9.97	0.11	0.01	—	0.01	0.01	—	0.01	37.2
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	13.6
Water	—	—	—	—	—	—	—	—	43.5
Waste	—	—	—	—	—	—	—	—	471
Refrig.	—	—	—	—	—	—	—	—	2.32
Total	13.3	2.36	0.04	5.48	5.52	0.04	1.39	1.43	6,159
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.61	0.41	0.01	1.00	1.01	0.01	0.25	0.26	926
Area	1.82	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.17

Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	2.25
Water	—	—	—	—	—	—	—	—	7.20
Waste	—	—	—	—	—	—	—	—	78.0
Refrig.	—	—	—	—	—	—	—	—	0.38
Total	2.43	0.43	0.01	1.00	1.01	0.01	0.25	0.26	1,020

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.43	1.97	0.03	5.38	5.42	0.03	1.36	1.39	5,672
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Golf Course	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.54	0.32	0.01	0.90	0.91	< 0.005	0.23	0.23	950
Total	3.96	2.29	0.04	6.29	6.33	0.03	1.59	1.63	6,622
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.28	2.31	0.03	5.38	5.42	0.03	1.36	1.39	5,338
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Golf Course	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

City Park	0.51	0.38	0.01	0.90	0.91	< 0.005	0.23	0.23	894
Total	3.79	2.68	0.04	6.29	6.33	0.03	1.59	1.63	6,232
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.56	0.38	0.01	0.91	0.92	0.01	0.23	0.24	847
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Golf Course	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.05	0.03	< 0.005	0.08	0.09	< 0.005	0.02	0.02	78.4
Total	0.61	0.41	0.01	1.00	1.01	0.01	0.25	0.26	926

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	10.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	3.12
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	13.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	10.5

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	3.12
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	13.6
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	1.73
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.52
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	2.25

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Golf Course	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
City Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Golf Course	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
City Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Golf Course	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
City Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	7.41	—	—	—	—	—	—	—	—
Architectural Coatings	1.25	—	—	—	—	—	—	—	—

Landscape Equipment	2.65	0.22	0.02	—	0.02	0.02	—	0.02	75.5
Total	11.3	0.22	0.02	—	0.02	0.02	—	0.02	75.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	7.41	—	—	—	—	—	—	—	—
Architectural Coatings	1.25	—	—	—	—	—	—	—	—
Total	8.66	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	1.35	—	—	—	—	—	—	—	—
Architectural Coatings	0.23	—	—	—	—	—	—	—	—
Landscape Equipment	0.24	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.17
Total	1.82	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.17

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	42.9
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.48
City Park	—	—	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	—	—	43.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	42.9
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.48
City Park	—	—	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	—	—	43.5
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	7.11
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	0.08
City Park	—	—	—	—	—	—	—	—	0.01
Total	—	—	—	—	—	—	—	—	7.20

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

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

Apartments Mid Rise	—	—	—	—	—	—	—	—	441
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	30.1
City Park	—	—	—	—	—	—	—	—	0.29
Total	—	—	—	—	—	—	—	—	471
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	441
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	30.1
City Park	—	—	—	—	—	—	—	—	0.29
Total	—	—	—	—	—	—	—	—	471
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	73.0
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Golf Course	—	—	—	—	—	—	—	—	4.98
City Park	—	—	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	—	—	78.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	2.32
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	2.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	2.32
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	2.32
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.38
Golf Course	—	—	—	—	—	—	—	—	0.00
City Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.38

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,292	1,166	970	448,343	7,634	6,887	5,730	2,648,072
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Golf Course	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	71.0	178	199	38,206	457	1,148	1,283	245,897

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0

Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
656910	218,970	0.00	0.00	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,893,368	0.00	0.0330	0.0040	0.00
Enclosed Parking with Elevator	564,136	0.00	0.0330	0.0040	0.00
Parking Lot	0.00	0.00	0.0330	0.0040	0.00
Golf Course	0.00	0.00	0.0330	0.0040	0.00
City Park	0.00	0.00	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Apartments Mid Rise	11,460,182	0.00
Enclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00
Golf Course	0.00	17,674,842
City Park	0.00	1,832,577

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	234	—
Enclosed Parking with Elevator	0.00	—
Parking Lot	0.00	—
Golf Course	15.9	—
City Park	0.15	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Golf Course	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Golf Course	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6
Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6
Cardio-vascular	41.3
Low Birth Weights	48.8

Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—
Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155
Park access	81.35506224
Retail density	39.89477736

Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2
Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	84.7

Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5
Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	SVP 2023 residential rate = 0 lb/MWh.
Land Use	Information provided by filled out construction worksheet from applicant.
Operations: Vehicle Data	Provided trip gen with reduction adjustments.
Operations: Hearths	No hearths.
Operations: Energy Use	Project design is al-electric. Confirmed no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga Ave/Pruneridge Apartments, Santa Clara BMPs T4 HRA Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga Ave/Pruneridge Apartments, Santa Clara BMPs T4 HRA
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	316	Dwelling Unit	3.66	324,400	0.00	—	945	—

Enclosed Parking with Elevator	407	Space	0.00	152,823	0.00	—	—	—
Parking Lot	26.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-1-A	Use Electric or Hybrid Powered Equipment
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	20.3	13.9	0.37	0.27	0.64	0.34	0.06	0.41	2,876
Mit.	19.3	12.0	0.04	0.27	0.29	0.04	0.06	0.09	2,558
% Reduced	5%	14%	88%	—	55%	87%	—	79%	11%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	22.1	24.0	0.55	0.31	0.85	0.50	0.07	0.58	5,407
Mit.	20.1	13.8	0.07	0.31	0.37	0.06	0.07	0.14	3,579
% Reduced	9%	43%	88%	—	56%	87%	—	76%	34%
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	11.5	9.58	0.19	0.14	0.33	0.18	0.03	0.21	1,945
Mit.	10.8	6.99	0.03	0.14	0.15	0.03	0.03	0.05	1,642
% Reduced	6%	27%	85%	—	54%	84%	—	78%	16%

Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.11	1.75	0.03	0.02	0.06	0.03	0.01	0.04	322
Mit.	1.97	1.28	0.01	0.02	0.03	0.01	0.01	0.01	272
% Reduced	6%	27%	85%	—	54%	84%	—	78%	16%

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	1.86	10.6	0.37	0.27	0.64	0.34	0.06	0.41	2,876
2028	20.3	13.9	0.20	0.04	0.24	0.18	0.01	0.19	2,557
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	1.83	10.7	0.37	0.27	0.64	0.34	0.06	0.41	2,863
2028	22.1	24.0	0.55	0.31	0.85	0.50	0.07	0.58	5,407
2029	20.5	15.7	0.23	0.06	0.29	0.21	0.01	0.23	3,060
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.90	5.51	0.19	0.14	0.33	0.18	0.03	0.21	1,480
2028	11.5	9.58	0.17	0.07	0.24	0.16	0.02	0.18	1,945
2029	2.34	1.59	0.02	< 0.005	0.02	0.02	< 0.005	0.02	296
Annual	—	—	—	—	—	—	—	—	—
2027	0.17	1.00	0.03	0.02	0.06	0.03	0.01	0.04	245
2028	2.11	1.75	0.03	0.01	0.04	0.03	< 0.005	0.03	322
2029	0.43	0.29	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	49.0

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.86	1.79	0.02	0.27	0.29	0.02	0.06	0.09	1,049
2028	19.3	12.0	0.04	0.04	0.08	0.04	0.01	0.05	2,558
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.83	2.50	0.04	0.27	0.29	0.04	0.06	0.09	2,313
2028	20.1	13.8	0.07	0.31	0.37	0.06	0.07	0.14	3,579
2029	19.4	12.7	0.05	0.06	0.11	0.05	0.01	0.07	3,060
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.40	1.05	0.01	0.14	0.15	0.01	0.03	0.05	644
2028	10.8	6.99	0.03	0.07	0.10	0.03	0.02	0.04	1,642
2029	2.23	1.38	0.01	< 0.005	0.01	0.01	< 0.005	0.01	296
Annual	—	—	—	—	—	—	—	—	—
2027	0.07	0.19	< 0.005	0.02	0.03	< 0.005	0.01	0.01	107
2028	1.97	1.28	0.01	0.01	0.02	0.01	< 0.005	0.01	272
2029	0.41	0.25	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	49.0

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Off-Road Equipment	0.33	3.20	0.09	—	0.09	0.08	—	0.08	823
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.01	—	0.01	0.01	—	0.01	72.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.12
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.71
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.12

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	1.11	0.02	—	0.02	0.02	—	0.02	823
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	72.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	12.0
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.12

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.71
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.12

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.98	0.06	—	0.06	0.05	—	0.05	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.17
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2027) - Mitigated

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

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

Off-Road Equipment	0.05	0.29	0.01	—	0.01	0.01	—	0.01	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	19.2
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.17
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	2.99	0.11	—	0.11	0.10	—	0.10	777
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.01	—	0.01	0.01	—	0.01	44.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.40
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.33	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	93.7
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.37
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.89

3.6. Grading (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	0.01	—	0.01	0.01	—	0.01	777
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	44.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.40
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.33	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	93.7
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.37
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.89

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	9.48	0.37	—	0.37	0.34	—	0.34	2,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	9.48	0.37	—	0.37	0.34	—	0.34	2,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	4.34	0.17	—	0.17	0.16	—	0.16	1,061
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.79	0.03	—	0.03	0.03	—	0.03	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.74	0.20	0.00	0.21	0.21	0.00	0.05	0.05	259
Vendor	0.03	0.72	< 0.005	0.05	0.05	< 0.005	0.01	0.02	246
Hauling	0.01	0.18	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.71	0.24	0.00	0.21	0.21	0.00	0.05	0.05	245

Vendor	0.03	0.75	< 0.005	0.05	0.05	< 0.005	0.01	0.02	247
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.5
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.32	0.10	0.00	0.09	0.09	0.00	0.02	0.02	113
Vendor	0.01	0.34	< 0.005	0.02	0.02	< 0.005	0.01	0.01	113
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	24.9
Annual	—	—	—	—	—	—	—	—	—
Worker	0.06	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	18.7
Vendor	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.12

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.01	—	0.01	0.01	—	0.01	223
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	37.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.74	0.20	0.00	0.21	0.21	0.00	0.05	0.05	259
Vendor	0.03	0.72	< 0.005	0.05	0.05	< 0.005	0.01	0.02	246
Hauling	0.01	0.18	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.71	0.24	0.00	0.21	0.21	0.00	0.05	0.05	245
Vendor	0.03	0.75	< 0.005	0.05	0.05	< 0.005	0.01	0.02	247
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.5
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.32	0.10	0.00	0.09	0.09	0.00	0.02	0.02	113
Vendor	0.01	0.34	< 0.005	0.02	0.02	< 0.005	0.01	0.01	113
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	24.9
Annual	—	—	—	—	—	—	—	—	—
Worker	0.06	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	18.7
Vendor	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.12

3.9. Building Construction (2028) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06	9.00	0.35	—	0.35	0.32	—	0.32	2,317
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.50	0.06	—	0.06	0.05	—	0.05	385
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.01	—	0.01	0.01	—	0.01	63.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.68	0.23	0.00	0.21	0.21	0.00	0.05	0.05	241
Vendor	0.03	0.73	< 0.005	0.05	0.05	< 0.005	0.01	0.01	242
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	53.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.11	0.04	0.00	0.03	0.03	0.00	0.01	0.01	40.3
Vendor	< 0.005	0.12	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	40.1
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.86
Annual	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.67
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.63
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.47

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.70	0.02	—	0.02	0.02	—	0.02	487
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	81.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.68	0.23	0.00	0.21	0.21	0.00	0.05	0.05	241
Vendor	0.03	0.73	< 0.005	0.05	0.05	< 0.005	0.01	0.01	242
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	53.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.11	0.04	0.00	0.03	0.03	0.00	0.01	0.01	40.3
Vendor	< 0.005	0.12	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	40.1

Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.86
Annual	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.67
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.63
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.47

3.11. Paving (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.82	0.06	—	0.06	0.06	—	0.06	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	53.1
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.79
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.48
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.07

3.12. Paving (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.57	0.01	—	0.01	0.01	—	0.01	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	53.1
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.79
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	54.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.48
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.07

3.13. Paving (2029) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.78	0.06	—	0.06	0.05	—	0.05	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.87
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.14
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	53.2
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02

3.14. Paving (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.57	0.01	—	0.01	0.01	—	0.01	445
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.87
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.14
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.19	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	53.2
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02

3.15. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	13.8	0.20	—	0.20	0.18	—	0.18	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	13.8	0.20	—	0.20	0.18	—	0.18	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.63	0.11	—	0.11	0.10	—	0.10	1,383
Architectural Coatings	10.4	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.39	0.02	—	0.02	0.02	—	0.02	229
Architectural Coatings	1.89	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.04	0.00	0.04	0.04	0.00	0.01	0.01	50.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.05	0.00	0.04	0.04	0.00	0.01	0.01	48.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	0.01	0.01	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	6.58	0.02	—	0.02	0.02	—	0.02	1,383
Architectural Coatings	10.4	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.20	< 0.005	—	< 0.005	< 0.005	—	< 0.005	229
Architectural Coatings	1.89	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.04	0.00	0.04	0.04	0.00	0.01	0.01	50.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.05	0.00	0.04	0.04	0.00	0.01	0.01	48.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	0.01	0.01	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2029) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	13.7	0.17	—	0.17	0.16	—	0.16	2,506

Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.58	0.02	—	0.02	0.02	—	0.02	289
Architectural Coatings	2.17	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.29	< 0.005	—	< 0.005	< 0.005	—	< 0.005	47.9
Architectural Coatings	0.40	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.04	0.00	0.04	0.04	0.00	0.01	0.01	47.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	11.9	0.04	—	0.04	0.04	—	0.04	2,506
Architectural Coatings	18.8	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.38	0.01	—	0.01	0.01	—	0.01	289
Architectural Coatings	2.17	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.25	< 0.005	—	< 0.005	< 0.005	—	< 0.005	47.9
Architectural Coatings	0.40	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.13	0.04	0.00	0.04	0.04	0.00	0.01	0.01	47.3

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Trenching (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.02	—	0.02	0.02	—	0.02	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.02	—	0.02	0.02	—	0.02	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Trenching (2027) - Mitigated

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

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

Off-Road Equipment	0.02	0.34	< 0.005	—	< 0.005	< 0.005	—	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.34	< 0.005	—	< 0.005	< 0.005	—	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	2/15/2027	5.00	32.0	—
Site Preparation	Site Preparation	2/15/2027	3/2/2027	5.00	12.0	—
Grading	Grading	2/10/2027	3/10/2027	5.00	21.0	—
Building Construction	Building Construction	5/12/2027	3/25/2028	5.00	228	—
Paving	Paving	11/1/2028	1/1/2029	5.00	44.0	—
Architectural Coating	Architectural Coating	3/25/2028	2/28/2029	5.00	243	—
Trenching	Trenching	3/11/2027	5/11/2027	5.00	44.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	2.00	33.0	0.73
Demolition	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	3.20	36.0	0.38
Grading	Graders	Diesel	Average	1.00	2.40	148	0.41
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	4.80	84.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Average	1.00	0.80	33.0	0.73

Building Construction	Cranes	Diesel	Average	2.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	3.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	4.00	6.50	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	4.00	2.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	0.50	46.0	0.45
Building Construction	Cement and Mortar Mixers	Diesel	Average	2.00	3.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	2.40	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	2.40	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	4.80	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	4.80	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	10.0	6.25	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	8.00	7.50	46.0	0.31
Trenching	Tractors/Loaders/Back hoes	Diesel	Average	1.00	4.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	3.20	36.0	0.38

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	2.00	33.0	0.73
Demolition	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	3.20	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	2.40	148	0.41

Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	4.80	84.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	0.80	33.0	0.73
Building Construction	Cranes	Electric	Average	2.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	3.00	82.0	0.20
Building Construction	Generator Sets	Electric	Average	4.00	6.50	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	2.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	0.50	46.0	0.45
Building Construction	Cement and Mortar Mixers	Diesel	Average	2.00	3.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Final	1.00	2.40	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	2.40	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	1.00	4.80	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	4.80	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	10.0	6.25	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Final	8.00	7.50	46.0	0.31
Trenching	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	4.00	84.0	0.37
Trenching	Excavators	Diesel	Tier 4 Final	1.00	3.20	36.0	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT

Demolition	Hauling	1.55	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	17.9	1.00	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	292	1.00	LDA,LDT1,LDT2
Building Construction	Vendor	58.8	1.00	HHDT,MHDT
Building Construction	Hauling	10.4	1.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	10.6	1.00	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	58.3	1.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	1.00	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

Trenching	Worker	5.00	1.00	LDA,LDT1,LDT2
Trenching	Vendor	—	1.00	HHDT,MHDT
Trenching	Hauling	0.00	1.00	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	1.55	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	17.9	1.00	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	292	1.00	LDA,LDT1,LDT2
Building Construction	Vendor	58.8	1.00	HHDT,MHDT
Building Construction	Hauling	10.4	1.00	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	10.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	10.6	1.00	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	58.3	1.00	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	1.00	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	1.00	LDA,LDT1,LDT2
Trenching	Vendor	—	1.00	HHDT,MHDT
Trenching	Hauling	0.00	1.00	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	656,910	218,970	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	4,000	—
Site Preparation	—	—	0.00	0.00	—
Grading	1,000	2,000	3.15	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Enclosed Parking with Elevator	0.00	100%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005
2028	0.00	387	0.03	< 0.005
2029	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6

Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6
Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—

Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155
Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2

Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5

Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	SVP 2023 residential rate = 0 lb/MWh.
Land Use	Total lot acreage, square footages, and number of parking spaces and units provided by filled out construction worksheet.

Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by filled out construction worksheet.
Construction: Trips and VMT	Demolition = 11 tons of pavement demo'ed and hauled (0.11 trips/day), Building Construction = 1,666 concrete truck round trips (10.4 trips/day), Paving = 440-cy of asphalt (10.6 trips/day). HRA = 1 mile trip length for localized emissions.
Construction: On-Road Fugitive Dust	Air District BMPs 15 mph. Required by Santa Clara GP.
Operations: Hearths	No hearths.
Operations: Energy Use	All-electric according to applicant.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga Ave/Pruneridge Golf Course Renovation BMPs T4 HRA Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga Ave/Pruneridge Golf Course Renovation BMPs T4 HRA
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Golf Course	17.1	Acre	17.1	0.00	744,000	744,000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

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

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.40	3.40	0.13	0.13	0.26	0.12	0.02	0.14	924
Mit.	0.11	0.52	0.02	0.13	0.14	0.02	0.02	0.03	924
% Reduced	72%	85%	87%	—	45%	86%	—	77%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.60	5.41	0.19	0.13	0.32	0.18	0.02	0.19	1,517
Mit.	0.18	0.84	0.03	0.13	0.16	0.03	0.02	0.04	1,517
% Reduced	70%	85%	86%	—	51%	84%	—	77%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.60	0.02	0.01	0.03	0.02	< 0.005	0.02	149
Mit.	0.02	0.08	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	149
% Reduced	72%	86%	88%	—	60%	87%	—	81%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.11	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	24.7
Mit.	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	24.7
% Reduced	72%	86%	88%	—	60%	87%	—	81%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.40	3.40	0.13	0.13	0.26	0.12	0.02	0.14	924
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.60	5.41	0.19	0.13	0.32	0.18	0.02	0.19	1,517
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.07	0.60	0.02	0.01	0.03	0.02	< 0.005	0.02	149
Annual	—	—	—	—	—	—	—	—	—
2027	0.01	0.11	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	24.7

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2027	0.11	0.52	0.02	0.13	0.14	0.02	0.02	0.03	924
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.18	0.84	0.03	0.13	0.16	0.03	0.02	0.04	1,517
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.02	0.08	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	149
Annual	—	—	—	—	—	—	—	—	—
2027	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	24.7

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.82	0.11	—	0.11	0.10	—	0.10	577
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	50.6
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.37
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.33	0.01	—	0.01	0.01	—	0.01	577
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	50.6
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.37
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

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

Off-Road Equipment	0.19	1.98	0.06	—	0.06	0.05	—	0.05	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.96
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.82
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.28

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.05

3.4. Site Preparation (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.29	0.01	—	0.01	0.01	—	0.01	583
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.9
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.96
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.82
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.28
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.05

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.31	0.13	—	0.13	0.12	—	0.12	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.31	0.13	—	0.13	0.12	—	0.12	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.01	—	0.01	0.01	—	0.01	70.9
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	22.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	22.6

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.79
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.30

3.6. Grading (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	893
Dust From Material Movement	—	—	—	0.11	0.11	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	70.9
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.7
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	22.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	22.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.79
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.30

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	2/15/2027	5.00	32.0	—
Site Preparation	Site Preparation	2/15/2027	3/5/2027	5.00	15.0	—
Grading	Grading	3/2/2027	4/10/2027	5.00	29.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	0.40	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	2.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	2.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	4.40	148	0.41
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	5.30	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	0.40	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	2.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	2.00	84.0	0.37
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	4.40	148	0.41

Grading	Tractors/Loaders/Back	Diesel	Tier 4 Final	3.00	5.30	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	1.30	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	4.31	1.00	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	1.30	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	4.31	1.00	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	0.00	0.00	—
Grading	1,000	—	7.98	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Golf Course	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6
Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6

Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—
Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155

Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2
Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6

Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5
Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by applicant in filled out construction worksheet.
Construction: Trips and VMT	Site Preparation = 10 concrete truck round trips (1.3 trips/day). HRA = 1 mile trip length of localized emissions.
Construction: On-Road Fugitive Dust	Air District BMPs = 15 mph required by Santa Clara general plan.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-037 400 Saratoga/Pruneridge Park BMPs T4 HRA Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-037 400 Saratoga/Pruneridge Park BMPs T4 HRA
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	32.4
Location	400 Saratoga Ave, Santa Clara, CA 95050, USA
County	Santa Clara
City	Santa Clara
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1816
EDFZ	1
Electric Utility	Silicon Valley Power
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
City Park	1.77	Acre	1.77	0.00	77,140	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

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

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.44	13.3	0.54	2.84	3.38	0.50	1.36	1.85	2,800
Mit.	0.29	2.35	0.05	2.84	2.89	0.05	1.36	1.40	2,800
% Reduced	80%	82%	91%	—	15%	90%	—	24%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.88	0.03	0.05	0.08	0.03	0.02	0.05	180
Mit.	0.02	0.16	< 0.005	0.05	0.05	< 0.005	0.02	0.02	180
% Reduced	80%	82%	90%	—	39%	90%	—	53%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.16	0.01	0.01	0.01	0.01	< 0.005	0.01	29.8
Mit.	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29.8
% Reduced	80%	82%	90%	—	39%	90%	—	53%	—

2.2. Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	1.44	13.3	0.54	2.84	3.38	0.50	1.36	1.85	2,800
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.10	0.88	0.03	0.05	0.08	0.03	0.02	0.05	180
Annual	—	—	—	—	—	—	—	—	—
2027	0.02	0.16	0.01	0.01	0.01	0.01	< 0.005	0.01	29.8

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.29	2.35	0.05	2.84	2.89	0.05	1.36	1.40	2,800
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.02	0.16	< 0.005	0.05	0.05	< 0.005	0.02	0.02	180
Annual	—	—	—	—	—	—	—	—	—
2027	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29.8

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34	12.4	0.47	—	0.47	0.43	—	0.43	2,502
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.68	0.03	—	0.03	0.02	—	0.02	137
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.7
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.27	0.05	—	0.05	0.05	—	0.05	2,502
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	137
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.7
Demolition	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Worker	0.03	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.4	0.47	—	0.47	0.43	—	0.43	2,072
Dust From Material Movement	—	—	—	2.44	2.44	—	1.17	1.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.4

Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.88
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2027) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.01	0.04	—	0.04	0.04	—	0.04	2,072
Dust From Material Movement	—	—	—	2.44	2.44	—	1.17	1.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.4
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.88
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37	12.2	0.54	—	0.54	0.50	—	0.50	2,464
Dust From Material Movement	—	—	—	2.78	2.78	—	1.34	1.34	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.13	0.01	—	0.01	0.01	—	0.01	27.0
Dust From Material Movement	—	—	—	0.03	0.03	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	1.14	< 0.005	0.06	0.06	< 0.005	0.02	0.02	328
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.58
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.59

3.6. Grading (2027) - Mitigated

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

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

Off-Road Equipment	0.23	1.20	0.05	—	0.05	0.05	—	0.05	2,464
Dust From Material Movement	—	—	—	2.78	2.78	—	1.34	1.34	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	27.0
Dust From Material Movement	—	—	—	0.03	0.03	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	1.14	< 0.005	0.06	0.06	< 0.005	0.02	0.02	328
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.58

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.59

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	1/29/2027	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2027	2/1/2027	5.00	2.00	—
Grading	Grading	2/2/2027	2/7/2027	5.00	4.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	7.00	84.0	0.37

5.2.2. Mitigated

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

Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	1.00	LDA,LDT1,LDT2

Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	62.5	1.00	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	0.00	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	62.5	1.00	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	1.88	0.00	—
Grading	1,000	1,000	4.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	387	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	20.5
AQ-DPM	44.6
Drinking Water	50.2
Lead Risk Housing	58.6

Pesticides	0.00
Toxic Releases	36.5
Traffic	51.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	52.0
Haz Waste Facilities/Generators	30.6
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	24.6
Cardio-vascular	41.3
Low Birth Weights	48.8
Socioeconomic Factor Indicators	—
Education	30.9
Housing	16.9
Linguistic	32.0
Poverty	25.3
Unemployment	22.6

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	88.41267804
Employed	86.50070576
Median HI	84.89670217
Education	—

Bachelor's or higher	81.90683947
High school enrollment	100
Preschool enrollment	87.36045169
Transportation	—
Auto Access	92.6344155
Active commuting	31.36147825
Social	—
2-parent households	76.00410625
Voting	89.42640832
Neighborhood	—
Alcohol availability	56.05030155
Park access	81.35506224
Retail density	39.89477736
Supermarket access	46.49044014
Tree canopy	78.14705505
Housing	—
Homeownership	44.15501091
Housing habitability	78.55767997
Low-inc homeowner severe housing cost burden	48.19709996
Low-inc renter severe housing cost burden	90.08084178
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	72.88592326
Arthritis	70.7
Asthma ER Admissions	64.8
High Blood Pressure	73.3
Cancer (excluding skin)	32.7
Asthma	80.2

Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	87.3
Life Expectancy at Birth	48.9
Cognitively Disabled	56.3
Physically Disabled	52.4
Heart Attack ER Admissions	48.0
Mental Health Not Good	84.7
Chronic Kidney Disease	79.8
Obesity	84.3
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	84.4
No Leisure Time for Physical Activity	82.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	36.8
English Speaking	57.3
Foreign-born	55.6
Outdoor Workers	83.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.1
Traffic Density	29.5

Traffic Access	50.6
Other Indices	—
Hardship	11.0
Other Decision Support	—
2016 Voting	82.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	19.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	PD/plans - 1.77-acre public park dedication
Construction: Construction Phases	Public park only - demo, site prep, grading, no building const or paving.
Construction: On-Road Fugitive Dust	Air District BMPs = 15mph

Characteristics: Utility Information	—
Operations: Vehicle Data	Provided trip gen with reduction adjustments.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Construction: Trips and VMT	HRA = 1 mile trip length for localized emissions.

Attachment 2: Project Construction Dispersion Modeling Inputs and Risk Calculations

Construction Health Risk Assessment and Calculations

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA

DPM Emissions and Modeling Emission Rates - Uncontrolled

Construction		DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
Year	Activity			(lb/yr)	(lb/hr)	(g/s)		
2027	Apts Const	0.0347	APT_DPM	69.5	0.02673	3.37E-03	17,303	1.95E-07
2028+2029	Apts Const	0.0356	APT_DPM	71.1	0.02735	3.45E-03	17,303	1.99E-07
2027	Golf Course Const	0.0042	GC_DPM	8.4	0.00321	4.05E-04	70,557	5.74E-09
2027	Park Const	0.0063	PAR_DPM	12.5	0.00481	6.07E-04	6,830	8.88E-08
Total		0.0807		161.5	0.0621	0.0078		

Construction Hours

hr/day = 10 (7am - 5pm, Mon - Fri)
 days/yr = 260
 hours/year = 2600

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA

PM2.5 Fugitive Dust Emissions for Modeling - Uncontrolled

Construction		Area Source		PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²
Year	Activity			(ton/year)	(lb/yr)	(lb/hr)		
2027	Apts Const	APT_FUG	0.0058	11.6	0.00446	5.62E-04	17,303	3.25E-08
2028+2029	Apts Const	APT_FUG	0.0032	6.3	0.00243	3.07E-04	17,303	1.77E-08
2027	Golf Course Const	GC_FUG	0.0003	0.52	0.00020	2.52E-05	70,557	3.57E-10
2027	Park Const	PAR_FUG	0.0039	7.81	0.00300	3.78E-04	6,830	5.54E-08
Total			0.0131	26.3	0.0101	0.0013		

Construction Hours

hr/day = 10 (7am - 5pm, Mon - Fri)
 days/yr = 260
 hours/year = 2600

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA
- Construction Health Impact Summary

Maximum Impacts at MEI Residential Location - Uncontrolled

Emissions Year						
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration (µg/m ³)
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m ³)	(µg/m ³)	Infant/Child	Adult	(-)	
2027	0.0255	0.0101	4.53	0.07	0.01	0.03
2028+2029	0.0249	0.0026	4.09	0.07	0.005	0.03
Total	-	-	8.62	0.14	-	-
Maximum	0.0255	0.0101	-	-	0.01	0.03

Maximum Impacts at L'Academy Preschool - Uncontrolled

Construction Year	Unmitigated Emissions				
	Maximum Concentrations		Infant/Child Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m ³)
	Exhaust PM10/DPM (µg/m ³)	Fugitive PM2.5 (µg/m ³)			
2027	0.0081	0.0027	3.97	0.002	0.01
2028+2029	0.0042	0.0004	2.05	0.001	0.005
Total	-	-	6.02	-	-
Maximum	0.0081	0.0027	-	0.002	0.01

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA
- Construction Health Impact Summary

Maximum Impacts at Worker MEI Location - Uncontrolled

Emissions Year	Unmitigated Emissions				
	Maximum Concentrations		Worker Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m ³)
	Exhaust PM10/DPM (µg/m ³)	Fugitive PM2.5 (µg/m ³)			
2027	0.0516	0.0108	0.26	0.01	0.06
2028+2029	0.0494	0.0048	0.25	0.01	0.05
Total	-	-	0.51	-	-
Maximum	0.0516	0.0108	-	0.01	0.06

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Construction Impacts - Uncontrolled
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Age → Parameter	Infant/Child			Adult
	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		Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	
			DPM Conc (ug/m3)			Age Sensitivity Factor	Modeled			Age Sensitivity Factor
			Year	Annual			DPM Conc (ug/m3)			
0	0.25	-0.25 - 0*	2027	0.0255	10	0.35	2027	0.0255	-	-
1	1	0 - 1	2027	0.0255	10	4.18	2027	0.0255	1	0.07
2	1	1 - 2	2028+2029	0.0249	10	4.09	2028+2029	0.0249	1	0.07
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00
Total Increased Cancer Risk						8.62				0.14

* Third trimester of pregnancy

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.01	0.01	0.03
0.005	0.003	0.03

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Construction Impacts - Uncontrolled
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height (2nd Floor Level)

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Age → Parameter	Infant/Child			Adult
	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		Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information		Age Sensitivity Factor	Adult Cancer Risk (per million)
			DPM Conc (ug/m3)				Modeled			
			Year	Annual			Year	Annual		
0	0.25	-0.25 - 0*	2027	0.0227	10	0.31	2027	0.0227	-	-
1	1	0 - 1	2027	0.0227	10	3.72	2027	0.0227	1	0.07
2	1	1 - 2	2028+2029	0.0151	10	2.47	2028+2029	0.0151	1	0.04
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00
Total Increased Cancer Risk						6.50				0.11

* Third trimester of pregnancy

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.00	0.01	0.03
0.00	0.00	0.02

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Construction Risks at Adult Worker Receptor Location
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Uncontrolled
Impacts at Worker MEI Location - 1.5 meter receptor height**

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Adult Worker	
Age ->	16+
Parameter	
ASF =	1
CPF =	1.10E+00
DBR* =	230
A =	1
EF =	250
AT =	25
FAH =	0.73

* 95th percentile breathing rates for adults

Construction Cancer Risk by Year - Maximum Impact Worker Receptor Location

Exposure Year	Exposure Duration (years)	Worker Adult - Exposure Information			Adult Cancer Risk (per million)	Maximum		
		Modeled		Age		Hazard Index	Fugitive PM2.5	Total PM2.5
		DPM Conc (ug/m3)		Sensitivity				
		Year	Annual	Factor				
1	1	2027	0.0516	1	0.26	0.01	0.01	0.06
2	1	2028+2029	0.0494	1	0.25	0.01	0.005	0.05
3	1		0.0000	1	0.00			
4	1		0.0000	1	0.00			
5	1		0.0000	1	0.00			
6	1		0.0000	1	0.00			
7	1		0.0000	1	0.00			
8	1		0.0000	1	0.00			
9	1		0.0000	1	0.00			
10	1		0.0000	1	0.00			
11	1		0.0000	1	0.00			
12	1		0.0000	1	0.00			
13	1		0.0000	1	0.00			
14	1		0.0000	1	0.00			
15	1		0.0000	1	0.00			
16	1		0.0000	1	0.00			
17	1		0.0000	1	0.00			
18	1		0.0000	1	0.00			
19	1		0.0000	1	0.00			
20	1		0.0000	1	0.00			
21	1		0.0000	1	0.00			
22	1		0.0000	1	0.00			
23	1		0.0000	1	0.00			
24	1		0.0000	1	0.00			
25	1		0.0000	1	0.00			
26	1		0.0000	1	0.00			
27	1		0.0000	1	0.00			
28	1		0.0000	1	0.00			
29	1		0.0000	1	0.00			
30	1		0.0000	1	0.00			
Total Increased Cancer Risk					0.51			

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Construction Risks at School Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Uncontrolled
Impacts at L'Academy Preschool (5 months - 6 years old) - 1 meter receptor heights

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

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

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

SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day

= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)

SHR = Hours/day of emission source operation

SDay = Number of days per week of source operation

SCHR = School operation hours while emission source in operation

8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

	Infant	Child
Age -->	0 - <2	2 - <16
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9	9
SHR =	10	10
SDay =	5	5
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.78	3.78

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

Construction Cancer Risk by Year - Head Start Center Receptor

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information			Child Cancer Risk (per million)	Maximum		
			DPM Conc (ug/m3)		Age*		Hazard Index	Fugitive PM2.5	Total PM2.5
			Year	Annual	Sensitivity Factor				
1	1	0 - 1	2027	0.0081	10	3.97	0.002	0.003	0.01
2	1	1 - 2	2028+2029	0.0042	10	2.05	0.001	0.0004	0.005
Total Increased Cancer Risk						6.02			

* Children assumed to be 5 months and older during 2 years of construction activities

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Construction Risks at School Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Uncontrolled
Impacts at Westwood Elementary School (3 - 10 years old) - 1 meter receptor heights

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

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

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

SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day

= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)

SHR = Hours/day of emission source operation

SDay = Number of days per week of source operation

SCHR = School operation hours while emission source in operation

8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

	Infant	Child
Age -->	0 - <2	2 - <16
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9	9
SHR =	10	10
SDay =	5	5
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.78	3.78

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

Construction Cancer Risk by Year - Head Start Center Receptor

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information			Child Cancer Risk (per million)	Maximum		
			DPM Conc (ug/m3)		Age*		Hazard Index	Fugitive PM2.5	Total PM2.5
			Year	Annual	Sensitivity Factor				
1	1	3 - 4	2027	0.0013	3	0.08	0.0003	0.0002	0.002
2	1	4 - 5	2028+2029	0.0005	3	0.03	0.0001	0.00004	0.001
Total Increased Cancer Risk						0.11			

* Children assumed to be +3 years during 2 years of construction activities

Attachment 3: Cumulative Screening and Health Risk Calculations from Existing TAC Sources

CT-EMFAC2021 Emissions Factors for Santa Clara County 2027

File Name: Pruneridge GC - Santa Clara (SF) - 2027 - Annual.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 5/30/2025 14:08
Area: Santa Clara (SF)
Analysis Year: 2027
Season: Annual

```
=====
Vehicle Category      VMT      Diesel VMT  Gas VMT
                     Fraction Fraction Fraction
                     Across Within  Within
                     Category Category Category
Truck 1               0.015      0.414      0.553
Truck 2               0.016      0.896      0.045
Non-Truck             0.969      0.007      0.911
=====
```

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

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

```
=====
Pollutant Name      <= 5 mph  10 mph    15 mph    20 mph    25 mph    30 mph    35 mph    40 mph    45 mph    50 mph    55 mph    60 mph
PM2.5               0.007763 0.005057 0.003438 0.00246   0.00186   0.001486 0.001255 0.001126 0.001073 0.001083 0.001154 0.001283
TOG                 0.115824 0.074831 0.050057 0.035624 0.026948 0.021468 0.017936 0.015695 0.014381 0.01381  0.013902 0.014739
Diesel PM           0.000812 0.000707 0.000546 0.000431 0.000361 0.000317 0.000295 0.000294 0.000313 0.000352 0.000411 0.000485
=====
```

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

```
=====
Pollutant Name      Emission Factor
TOG                 0.955785
=====
```

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

```
=====
Pollutant Name      Emission Factor
PM2.5               0.002092
=====
```

Fleet Average Brake Wear 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
PM2.5               0.003357 0.003903 0.004442 0.004974 0.005261 0.005349 0.005379 0.004891 0.003858 0.002839 0.002197 0.001894
=====
```

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

```
=====
Pollutant Name      Emission Factor
PM2.5               0.015013
=====
```

=====END=====

Analysis Year = 2027									
Vehicle Type	2024 Caltrans Vehicles (veh/day)	2027 Vehicles (veh/day)							
Total	44,305	45,634							
Increase From 2024		1.03							
Vehicles/Direction		22,817							
Avg Vehicles/Hour/Direction		951							
Traffic Data Year = 2024									
Project Traffic - Cumulative + Project	AADT Total	Total	Trucks by Axle				1,373	Trucks	100%
2022 Caltrans Truck Percentages from I-280		Truck	2	3	4	5			
Pruneridge & San Tomas Expy	44,305	1,373	658	239	66	411	1.5%	MDT	Truck 1
			47.90%	17.40%	4.80%	29.90%	1.6%	HDT	Truck 2
Percent of Total Vehicles		3.10%	1.48%	0.54%	0.15%	0.93%	3.1%	Total	
Traffic Increase per Year (%) = 1.00%							96.9%	Other	

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Off-Site Residential
Cumulative Traffic - San Tomas Expressway
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2027

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_STE	San Tomas Expressway Northbound	NB	3	1064.0	0.66	17.0	55.7	3.4	45	22,817	18,059	194,386	3.026E-09	2.231E-09	6.8	3.16
DPM_SB_STE	San Tomas Expressway Southbound	SB	3	1050.4	0.65	17.0	55.7	3.4	45	22,817	17,828	191,901	3.026E-09	2.231E-09	6.8	3.16
									Total	45,634						

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	45			
Emissions per Vehicle (g/VMT)	0.00031			

Emission Factors from CT-EMFAC2021

2027
Hourl
Hour

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_STE

	% Per				% Per				% Per		
Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s
1	0.82%	187	1.08E-05	9	6.13%	1399	8.04E-05	17	6.98%	1593	9.16E-05
2	0.47%	108	6.20E-06	10	6.06%	1384	7.95E-05	18	6.97%	1591	9.14E-05
3	0.42%	97	5.56E-06	11	5.93%	1354	7.78E-05	19	6.29%	1435	8.25E-05
4	0.36%	81	4.67E-06	12	5.79%	1322	7.60E-05	20	5.18%	1181	6.79E-05
5	0.61%	138	7.95E-06	13	6.06%	1382	7.94E-05	21	4.08%	931	5.35E-05
6	1.59%	363	2.09E-05	14	6.28%	1433	8.24E-05	22	3.34%	762	4.38E-05
7	3.30%	752	4.32E-05	15	7.07%	1614	9.28E-05	23	2.39%	546	3.14E-05
8	5.29%	1207	6.94E-05	16	7.11%	1622	9.32E-05	24	1.47%	335	1.93E-05
Total										22,817	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_STE

2027 Hourly Traffic Volumes Per Direction and DM Emissions - DM 35-51E											
Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.82%	187	1.06E-05	9	6.13%	1399	7.94E-05	17	6.98%	1593	9.04E-05
2	0.47%	108	6.12E-06	10	6.06%	1384	7.85E-05	18	6.97%	1591	9.03E-05
3	0.42%	97	5.49E-06	11	5.93%	1354	7.68E-05	19	6.29%	1435	8.14E-05
4	0.36%	81	4.61E-06	12	5.79%	1322	7.50E-05	20	5.18%	1181	6.70E-05
5	0.61%	138	7.85E-06	13	6.06%	1382	7.84E-05	21	4.08%	931	5.29E-05
6	1.59%	363	2.06E-05	14	6.28%	1433	8.13E-05	22	3.34%	762	4.33E-05
7	3.30%	752	4.27E-05	15	7.07%	1614	9.16E-05	23	2.39%	546	3.10E-05
8	5.29%	1207	6.85E-05	16	7.11%	1622	9.20E-05	24	1.47%	335	1.90E-05
Total										22,817	

Emission Factors - PM2.5

2027
Hourl

Hour

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.82%	187	3.69E-05	9	6.13%	1399	2.76E-04	17	6.98%	1593	3.14E-04
2	0.47%	108	2.12E-05	10	6.06%	1384	2.73E-04	18	6.97%	1591	3.13E-04
3	0.42%	97	1.91E-05	11	5.93%	1354	2.67E-04	19	6.29%	1435	2.83E-04
4	0.36%	81	1.60E-05	12	5.79%	1322	2.60E-04	20	5.18%	1181	2.33E-04
5	0.61%	138	2.72E-05	13	6.06%	1382	2.72E-04	21	4.08%	931	1.84E-04
6	1.59%	363	7.15E-05	14	6.28%	1433	2.82E-04	22	3.34%	762	1.50E-04
7	3.30%	752	1.48E-04	15	7.07%	1614	3.18E-04	23	2.39%	546	1.08E-04
8	5.29%	1207	2.38E-04	16	7.11%	1622	3.20E-04	24	1.47%	335	6.60E-05
Total										22,817	

	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.82%	187	3.64E-05	9	6.13%	1399	2.72E-04	17	6.98%	1593	3.10E-04
2	0.47%	108	2.10E-05	10	6.06%	1384	2.69E-04	18	6.97%	1591	3.09E-04
3	0.42%	97	1.88E-05	11	5.93%	1354	2.63E-04	19	6.29%	1435	2.79E-04
4	0.36%	81	1.58E-05	12	5.79%	1322	2.57E-04	20	5.18%	1181	2.30E-04
5	0.61%	138	2.69E-05	13	6.06%	1382	2.69E-04	21	4.08%	931	1.81E-04
6	1.59%	363	7.06E-05	14	6.28%	1433	2.79E-04	22	3.34%	762	1.48E-04
7	3.30%	752	1.46E-04	15	7.07%	1614	3.14E-04	23	2.39%	546	1.06E-04
8	5.29%	1207	2.35E-04	16	7.11%	1622	3.16E-04	24	1.47%	335	6.52E-05
Total										22,817	

Emission Factors - TOG Exhaust

2027
Hourl

Hour

[illegible]

	% Per				% Per				% Per		
Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile
1	0.82%	187	4.88E-04	9	6.13%	1399	3.65E-03	17	6.98%	1593	4.15E-03
2	0.47%	108	2.81E-04	10	6.06%	1384	3.61E-03	18	6.97%	1591	4.15E-03
3	0.42%	97	2.52E-04	11	5.93%	1354	3.53E-03	19	6.29%	1435	3.74E-03
4	0.36%	81	2.12E-04	12	5.79%	1322	3.45E-03	20	5.18%	1181	3.08E-03
5	0.61%	138	3.60E-04	13	6.06%	1382	3.60E-03	21	4.08%	931	2.43E-03
6	1.59%	363	9.46E-04	14	6.28%	1433	3.74E-03	22	3.34%	762	1.99E-03
7	3.30%	752	1.96E-03	15	7.07%	1614	4.21E-03	23	2.39%	546	1.42E-03
8	5.29%	1207	3.15E-03	16	7.11%	1622	4.23E-03	24	1.47%	335	8.74E-04
Total										22,817	

Emission Factors - PM2.5 - Evaporative TOG

2027

Hour

1

	% Per Hour	VPH	g/s		% Per Hour	VPH	g/s		% Per Hour	VPH	g/s
Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.82%	187	7.30E-04	9	6.13%	1399	5.46E-03	17	6.98%	1593	6.21E-03
2	0.47%	108	4.21E-04	10	6.06%	1384	5.40E-03	18	6.97%	1591	6.21E-03
3	0.42%	97	3.77E-04	11	5.93%	1354	5.28E-03	19	6.29%	1435	5.60E-03
4	0.36%	81	3.17E-04	12	5.79%	1322	5.15E-03	20	5.18%	1181	4.61E-03
5	0.61%	138	5.39E-04	13	6.06%	1382	5.39E-03	21	4.08%	931	3.63E-03
6	1.59%	363	1.41E-03	14	6.28%	1433	5.59E-03	22	3.34%	762	2.97E-03
7	3.30%	752	2.93E-03	15	7.07%	1614	6.30E-03	23	2.39%	546	2.13E-03
8	5.29%	1207	4.71E-03	16	7.11%	1622	6.33E-03	24	1.47%	335	1.31E-03
Total										22,817	

	% Per				% Per				% Per		
Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile
1	0.82%	187	7.20E-04	9	6.13%	1399	5.39E-03	17	6.98%	1593	6.13E-03
2	0.47%	108	4.15E-04	10	6.06%	1384	5.33E-03	18	6.97%	1591	6.13E-03
3	0.42%	97	3.73E-04	11	5.93%	1354	5.21E-03	19	6.29%	1435	5.53E-03
4	0.36%	81	3.13E-04	12	5.79%	1322	5.09E-03	20	5.18%	1181	4.55E-03
5	0.61%	138	5.32E-04	13	6.06%	1382	5.32E-03	21	4.08%	931	3.59E-03
6	1.59%	363	1.40E-03	14	6.28%	1433	5.52E-03	22	3.34%	762	2.94E-03
7	3.30%	752	2.90E-03	15	7.07%	1614	6.22E-03	23	2.39%	546	2.10E-03
8	5.29%	1207	4.65E-03	16	7.11%	1622	6.25E-03	24	1.47%	335	1.29E-03
Total										22,817	

											Line Area						
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area	Area	Emission	Emission	Initial Vertical	(Sigma z)	
											(sq m)	(sq ft)	(g/s/m2)	(lb/hr/ft2)	height (m)	Initial Vertical Dimension	
FUG_NB_STE	San Tomas Expressway Northbound	NB	3	1064.0	0.66	17.0	56	1.3	45	22,817	18,059	194,386	2.027E-07	1.494E-07	2.6	1.21	
FUG_SB_STE	San Tomas Expressway Southbound	SB	3	1050.4	0.65	17.0	56	1.3	45	22,817	17,828	191,901	2.027E-07	1.494E-07	2.6	1.21	
										Total	45,634						
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												
Travel Speed (mph)		45															
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															
Brake Wear - Emissions per Vehicle (g/VMT)		0.00386															
Road Dust - Emissions per Vehicle (g/VMT)		0.01501															
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02096															
Emission Factors from CT-EMFAC2021																	
																2027 Hour	
																Hour	
																1	
																2	
																3	

[illegible]

	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.82%	187	7.11E-04	9	6.13%	1399	5.32E-03	17	6.98%	1593	6.05E-03
2	0.47%	108	4.10E-04	10	6.06%	1384	5.26E-03	18	6.97%	1591	6.05E-03
3	0.42%	97	3.68E-04	11	5.93%	1354	5.14E-03	19	6.29%	1435	5.45E-03
4	0.36%	81	3.09E-04	12	5.79%	1322	5.02E-03	20	5.18%	1181	4.49E-03
5	0.61%	138	5.25E-04	13	6.06%	1382	5.25E-03	21	4.08%	931	3.54E-03
6	1.59%	363	1.38E-03	14	6.28%	1433	5.45E-03	22	3.34%	762	2.90E-03
7	3.30%	752	2.86E-03	15	7.07%	1614	6.13E-03	23	2.39%	546	2.08E-03
8	5.29%	1207	4.59E-03	16	7.11%	1622	6.16E-03	24	1.47%	335	1.27E-03
Total										22,817	

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, 1.5m receptor height**

Emission Year 2027
Receptor Information
 Number of Receptors 2
 Receptor Height 1.5 meters
 Receptor Distances At Project MEI locations

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data 2013-2017
 Land Use Classification Urban
 Wind Speed Variable
 Wind Direction Variable

Project MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0018	0.1327	0.1961

Project MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0721	0.0686	0.0035

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Cancer Risk & PM2.5
Impacts at Project ME1 - 1.5 meter (1st floor) receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2027	10	0.0018	0.1327	0.1961	0.024	0.010	0.0009	0.04
1	1	0 - 1	2027	10	0.0018	0.1327	0.1961	0.291	0.124	0.0108	0.43
2	1	1 - 2	2028	10	0.0018	0.1327	0.1961	0.291	0.124	0.0108	0.43
3	1	2 - 3	2029	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
4	1	3 - 4	2030	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
5	1	4 - 5	2031	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
6	1	5 - 6	2032	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
7	1	6 - 7	2033	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
8	1	7 - 8	2034	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
9	1	8 - 9	2035	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
10	1	9 - 10	2036	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
11	1	10 - 11	2037	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
12	1	11 - 12	2038	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
13	1	12 - 13	2039	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
14	1	13 - 14	2040	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
15	1	14 - 15	2041	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
16	1	15 - 16	2042	3	0.0018	0.1327	0.1961	0.046	0.020	0.0017	0.07
17	1	16-17	2043	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
18	1	17-18	2044	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
19	1	18-19	2045	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
20	1	19-20	2046	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
21	1	20-21	2047	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
22	1	21-22	2048	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
23	1	22-23	2049	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
24	1	23-24	2050	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
25	1	24-25	2051	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
26	1	25-26	2052	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
27	1	26-27	2053	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
28	1	27-28	2054	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
29	1	28-29	2055	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
30	1	29-30	2056	1	0.0018	0.1327	0.1961	0.005	0.002	0.0002	0.01
Total Increased Cancer Risk								1.32	0.564	0.049	1.93

* Third trimester of pregnancy

Maximum
Hazard Index 0.0004
Fugitive PM2.5 0.07
Total PM2.5 0.07

Analysis Year = 2027						
Vehicle Type	2024 Caltrans Vehicles (veh/day)	2027 Vehicles (veh/day)				
Total	11,855	12,211				
Increase From 2024		1.03				
Vehicles/Direction		6,105				
Avg Vehicles/Hour/Direction		254				
Traffic Data Year = 2024						
Project Traffic - Cumulative + Project	AADT Total	Total	Trucks by Axle			
2022 Caltrans Truck Percentages from I-280		Truck	2	3	4	5
Pruneridge & San Tomas Expy	11,855	368	176	64	18	110
			47.90%	17.40%	4.80%	29.90%
Percent of Total Vehicles		3.10%	1.48%	0.54%	0.15%	0.93%
Traffic Increase per Year (%) = 1.00%						
			368	Trucks	100%	
			1.5%	MDT	Truck 1	
			1.6%	HDT	Truck 2	
			3.1%	Total		
			96.9%	Other		

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					(Sigma z) Initial Vertical Dimension	
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)		
											DPM_EB_PRU	Pruneridge Avenue Eastbound	EB	2	902.5		0.56
DPM_WB_PRU	Pruneridge Avenue Westbound	WB	2	905.5	0.56	13.3	43.7	3.4	35	6,105	12,057	129,780	9.728E-10	7.173E-10	6.8	3.16	
										Total	12,211						
Emission Factors - DPM																	
				Speed Category		1	2	3	4								
				Travel Speed (mph)		35											
				Emissions per Vehicle (g/VMT)		0.00030											

Emission Factors from CT-EMFAC2021

2027 Hour

Hour

[illegible][illegible]

Emission Factors - PM2.5

2027
Hourl

Hour

[illegible][illegible]

Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Off-Site Residential
Cumulative Traffic - Pruneridge Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2027

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma 2) Initial Vertical Dimension
TEXH_EB_PRU	Pruneridge Avenue Eastbound	EB	2	902.5	0.56	13.3	44	1.3	35	6,105	12,017	129,350	5.915E-08	4.361E-08	2.6	1.21
TEXH_WB_PRU	Pruneridge Avenue Westbound	WB	2	905.5	0.56	13.3	44	1.3	35	6,105	12,057	129,780	5.915E-08	4.361E-08	2.6	1.21
										Total	12,211					

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01794			

Emission Factors from CT-EMFAC2021

2027
Hourl

Hour

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_PRU

[illegible]

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_PRU

[illegible]

Emission Factors - PM2.5 - Evaporative TOG

2027

Emission Factors from CT-EMFAC2021

7.67E-01 1

[illegible][illegible]

										Line Area							(Sigma z)
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m ²)	Emission (lb/hr/ft ²)	Initial Vertical height (m)	Initial Vertical Dimension	
FUG_EB_PRU	Pruneridge Avenue Eastbound	EB	2	902.5	0.56	13.3	44	1.3	35	6,105	12,017	129,350	7.414E-08	5.467E-08	2.6	1.21	
FUG_WB_PRU	Pruneridge Avenue Westbound	WB	2	905.5	0.56	13.3	44	1.3	35	6,105	12,057	129,780	7.414E-08	5.467E-08	2.6	1.21	
Total										12,211							
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												
Travel Speed (mph)		35															
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															
Brake Wear - Emissions per Vehicle (g/VMT)		0.00538															
Road Dust - Emissions per Vehicle (g/VMT)		0.01501															
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02248															

Emission Factors from CT-EMFAC2021

2027 Hourly

Hour
1
2
3

[illegible][illegible]

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, 1.5m receptor height**

Emission Year	2027
Receptor Information	Project MEI receptors
Number of Receptors	2
Receptor Height	1.5 meters
Receptor Distances	At Project MEI locations

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0002	0.0142	0.0215

Project MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0941	0.0892	0.0050

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Cancer Risk & PM2.5
Impacts at Project ME1 - 1.5 meter (1st floor) receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2027	10	0.0002	0.0142	0.0215	0.003	0.001	0.0001	0.00
1	1	0 - 1	2027	10	0.0002	0.0142	0.0215	0.031	0.013	0.0012	0.05
2	1	1 - 2	2028	10	0.0002	0.0142	0.0215	0.031	0.013	0.0012	0.05
3	1	2 - 3	2029	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
4	1	3 - 4	2030	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
5	1	4 - 5	2031	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
6	1	5 - 6	2032	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
7	1	6 - 7	2033	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
8	1	7 - 8	2034	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
9	1	8 - 9	2035	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
10	1	9 - 10	2036	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
11	1	10 - 11	2037	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
12	1	11 - 12	2038	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
13	1	12 - 13	2039	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
14	1	13 - 14	2040	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
15	1	14 - 15	2041	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
16	1	15 - 16	2042	3	0.0002	0.0142	0.0215	0.005	0.002	0.0002	0.01
17	1	16-17	2043	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
18	1	17-18	2044	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
19	1	18-19	2045	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
20	1	19-20	2046	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
21	1	20-21	2047	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
22	1	21-22	2048	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
23	1	22-23	2049	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
24	1	23-24	2050	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
25	1	24-25	2051	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
26	1	25-26	2052	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
27	1	26-27	2053	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
28	1	27-28	2054	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
29	1	28-29	2055	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
30	1	29-30	2056	1	0.0002	0.0142	0.0215	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.14	0.060	0.005	0.21

* Third trimester of pregnancy

Maximum
Hazard Index 0.00004
Fugitive PM2.5 0.09
Total PM2.5 0.09

Analysis Year = 2027									
Vehicle Type	2024 Caltrans Vehicles (veh/day)	2027 Vehicles (veh/day)							
Total	10,455	10,769							
Increase From 2024		1.03							
Vehicles/Direction		5,384							
Avg Vehicles/Hour/Direction		224							
Traffic Data Year = 2024									
Project Traffic - Cumulative + Project	AADT Total	Total Truck	Trucks by Axle				324	Trucks	100%
2022 Caltrans Truck Percentages from I-280			2	3	4	5			
Pruneridge & San Tomas Expy	10,455	324	155	56	16	97	1.5%	MDT	Truck 1
			47.90%	17.40%	4.80%	29.90%	1.6%	HDT	Truck 2
Percent of Total Vehicles		3.10%	1.48%	0.54%	0.15%	0.93%	3.1%	Total	
Traffic Increase per Year (%) = 1.00%							96.9%	Other	

											Line Area					(Sigma z) Initial Vertical Dimension			
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)				
DPM_NB_SAR	Saratoga Avenue Northbound	NB	2	1014.6	0.63	13.3	43.7	3.4	35	5,384	13,510	145,416	8.579E-10	6.326E-10	6.8	3.16			
DPM_SB_SAR	Saratoga Avenue Southbound	SB	2	1030.7	0.64	13.3	43.7	3.4	35	5,384	13,724	147,724	8.579E-10	6.326E-10	6.8	3.16			
										Total	10,769								
Emission Factors - DPM																			
				Speed Category															
				Travel Speed (mph)															
				Emissions per Vehicle (g/VMT)															
				1				2				3				4			
				35															
				0.00030															

Emission Factors from CT-EMFAC2021
2027 Hour
Hour

[illegible][illegible]

Emission Factors - PM2.5

2027
Hourl

Hour

[illegible][illegible]

Emission Factors - TCG Exhaust

2027
Hourl

Hour

[illegible][illegible]

Emission Factors - PM2.5 - Evaporative TOG

2027

Emission Factors from CT-EMFAC2021

7.60E-01 1

[illegible][illegible]

												Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension	
FUG_NB_SAR	Saratoga Avenue Northbound	NB	2	1014.6	0.63	13.3	44	1.3	35	5,384	13,510	145,416	6.539E-08	4.821E-08	2.6	1.21	
FUG_SB_SAR	Saratoga Avenue Southbound	SB	2	1030.7	0.64	13.3	44	1.3	35	5,384	13,724	147,724	6.539E-08	4.821E-08	2.6	1.21	
										Total	10,769						
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												2027
Travel Speed (mph)		35															Hour
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															1
Brake Wear - Emissions per Vehicle (g/VMT)		0.00538															2
Road Dust - Emissions per Vehicle (g/VMT)		0.01501															3
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02248															
Emission Factors from CT-EMFAC2021																	

[illegible][illegible]

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Project MEI Receptors, 1.5m receptor height**

<u>Emission Year</u>	2027
<u>Receptor Information</u>	Project MEI receptors
Number of Receptors	2
Receptor Height	1.5 meters
Receptor Distances	At Project MEI locations

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Project MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0001	0.0040	0.0061

Project MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0420	0.0398	0.0022

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Cancer Risk & PM2.5
Impacts at Project ME1 - 1.5 meter (1st floor) receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2027	10	0.0001	0.0040	0.0061	0.001	0.000	0.0000	0.00
1	1	0 - 1	2027	10	0.0001	0.0040	0.0061	0.010	0.004	0.0003	0.01
2	1	1 - 2	2028	10	0.0001	0.0040	0.0061	0.010	0.004	0.0003	0.01
3	1	2 - 3	2029	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
4	1	3 - 4	2030	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
5	1	4 - 5	2031	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
6	1	5 - 6	2032	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
7	1	6 - 7	2033	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
8	1	7 - 8	2034	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
9	1	8 - 9	2035	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
10	1	9 - 10	2036	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
11	1	10 - 11	2037	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
12	1	11 - 12	2038	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
13	1	12 - 13	2039	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
14	1	13 - 14	2040	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
15	1	14 - 15	2041	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
16	1	15 - 16	2042	3	0.0001	0.0040	0.0061	0.002	0.001	0.0001	0.00
17	1	16-17	2043	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
18	1	17-18	2044	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
19	1	18-19	2045	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
20	1	19-20	2046	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
21	1	20-21	2047	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
22	1	21-22	2048	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
23	1	22-23	2049	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
24	1	23-24	2050	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
25	1	24-25	2051	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
26	1	25-26	2052	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
27	1	26-27	2053	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
28	1	27-28	2054	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
29	1	28-29	2055	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
30	1	29-30	2056	1	0.0001	0.0040	0.0061	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.04	0.017	0.002	0.06

* Third trimester of pregnancy

Maximum
Hazard Index 0.00001
Fugitive PM2.5 0.04
Total PM2.5 0.04

CT-EMFAC2021 Emissions Factors for Santa Clara County 2029

File Name: Pruneridge GC - Santa Clara (SF) - 2029 - Annual.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 5/30/2025 14:09
Area: Santa Clara (SF)
Analysis Year: 2029
Season: Annual

```
=====
Vehicle Category      VMT      Diesel VMT  Gas VMT
                     Fraction Fraction  Fraction
                     Across  Within    Within
                     Category Category Category
Truck 1               0.015      0.403      0.528
Truck 2               0.016      0.873      0.043
Non-Truck             0.969      0.006      0.907
=====
```

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

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

```
=====
Pollutant Name      <= 5 mph  10 mph    15 mph    20 mph    25 mph    30 mph    35 mph    40 mph    45 mph    50 mph    55 mph    60 mph
PM2.5               0.00684   0.00445   0.003026 0.002167 0.001638 0.001309 0.001108 0.000996 0.000952 0.000966 0.001033 0.001152
TOG                  0.10178   0.065704 0.043941 0.031306 0.023715 0.018923 0.015834 0.013873 0.012719 0.012214 0.012285 0.013007
Diesel PM            0.000672   0.000588 0.000459 0.000367 0.000308 0.000273 0.000256 0.000258 0.000279 0.000318 0.000374 0.000446
=====
```

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

```
=====
Pollutant Name      Emission Factor
TOG                  0.899046
=====
```

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

```
=====
Pollutant Name      Emission Factor
PM2.5               0.002091
=====
```

Fleet Average Brake Wear 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
PM2.5               0.00334   0.003886 0.004425 0.004957 0.005244 0.00533  0.005357 0.004869 0.00384  0.002825 0.002185 0.001881
=====
```

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

```
=====
Pollutant Name      Emission Factor
PM2.5               0.015066
=====
```

=====END=====

Analysis Year = 2029			
Vehicle Type	2024 Caltrans Vehicles (veh/day)	2029 Vehicles (veh/day)	
Total	44,305	46,520	
Increase From 2024		1.05	
Vehicles/Direction		23,260	
Avg Vehicles/Hour/Direction		969	
Traffic Data Year = 2024			
Project Traffic - Cumulative + Project		Total	Trucks by Axle
2022 Caltrans Truck Percentages from I-280	AADT Total	Truck	2345
Pruneridge & San Tomas Expy	44,305	1,373	65823966411
			47.90%17.40%4.80%29.90%
Percent of Total Vehicles		3.10%	1.48%0.54%0.15%0.93%
Traffic Increase per Year (%) = 1.00%			
		1.373	Trucks
		1.5%	MDT
		1.6%	HDT
		3.1%	Total
		96.9%	Other

												Line Area					(Sigma z) Initial Vertical Dimension
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)		
DPM_NB_STE	San Tomas Expressway Northbound	NB	3	1064.0	0.66	17.0	55.7	3.4	45	23,260	18,059	194,386	2.750E-09	2.027E-09	6.8	3.16	
DPM_SB_STE	San Tomas Expressway Southbound	SB	3	1050.4	0.65	17.0	55.7	3.4	45	23,260	17,828	191,901	2.750E-09	2.027E-09	6.8	3.16	
Total										46,520							
Emission Factors - DPM																	
Speed Category		1	2	3	4												
Travel Speed (mph)		45															
Emissions per Vehicle (g/VMT)		0.00028															

2029 Hour

Hour

Emission Factors from CT-EMFAC2021

	% Per				% Per				% Per		
Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s
1	0.82%	191	9.77E-06	9	6.13%	1426	7.30E-05	17	6.98%	1624	8.32E-05
2	0.47%	110	5.63E-06	10	6.06%	1410	7.23E-05	18	6.97%	1622	8.31E-05
3	0.42%	99	5.05E-06	11	5.93%	1380	7.07E-05	19	6.29%	1463	7.50E-05
4	0.36%	83	4.24E-06	12	5.79%	1347	6.90E-05	20	5.18%	1204	6.17E-05
5	0.61%	141	7.22E-06	13	6.06%	1409	7.22E-05	21	4.08%	950	4.87E-05
6	1.59%	370	1.89E-05	14	6.28%	1461	7.49E-05	22	3.34%	777	3.98E-05
7	3.30%	767	3.93E-05	15	7.07%	1645	8.43E-05	23	2.39%	557	2.85E-05
8	5.29%	1230	6.30E-05	16	7.11%	1654	8.47E-05	24	1.47%	342	1.75E-05
Total										23,260	

	% Per				% Per				% Per		
Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile
1	0.82%	191	9.65E-06	9	6.13%	1426	7.21E-05	17	6.98%	1624	8.22E-05
2	0.47%	110	5.56E-06	10	6.06%	1410	7.13E-05	18	6.97%	1622	8.20E-05
3	0.42%	99	4.99E-06	11	5.93%	1380	6.98E-05	19	6.29%	1463	7.40E-05
4	0.36%	83	4.19E-06	12	5.79%	1347	6.81E-05	20	5.18%	1204	6.09E-05
5	0.61%	141	7.13E-06	13	6.06%	1409	7.13E-05	21	4.08%	950	4.80E-05
6	1.59%	370	1.87E-05	14	6.28%	1461	7.39E-05	22	3.34%	777	3.93E-05
7	3.30%	767	3.88E-05	15	7.07%	1645	8.32E-05	23	2.39%	557	2.82E-05
8	5.29%	1230	6.22E-05	16	7.11%	1654	8.36E-05	24	1.47%	342	1.73E-05
Total										23,260	

Emission Factors - PM2.5

2029
Hourl

Hour

	% Per Hour	VPH	g/s		% Per Hour	VPH	g/s		% Per Hour	VPH	g/s
Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.82%	191	3.33E-05	9	6.13%	1426	2.49E-04	17	6.98%	1624	2.84E-04
2	0.47%	110	1.92E-05	10	6.06%	1410	2.47E-04	18	6.97%	1622	2.84E-04
3	0.42%	99	1.72E-05	11	5.93%	1380	2.41E-04	19	6.29%	1463	2.56E-04
4	0.36%	83	1.45E-05	12	5.79%	1347	2.36E-04	20	5.18%	1204	2.10E-04
5	0.61%	141	2.46E-05	13	6.06%	1409	2.46E-04	21	4.08%	950	1.66E-04
6	1.59%	370	6.47E-05	14	6.28%	1461	2.55E-04	22	3.34%	777	1.36E-04
7	3.30%	767	1.34E-04	15	7.07%	1645	2.88E-04	23	2.39%	557	9.74E-05
8	5.29%	1230	2.15E-04	16	7.11%	1654	2.89E-04	24	1.47%	342	5.97E-05
Total										23,260	

	% Per Hour	VPH	g/mile		% Per Hour	VPH	g/mile		% Per Hour	VPH	g/mile
1	0.82%	191	3.29E-05	9	6.13%	1426	2.46E-04	17	6.98%	1624	2.80E-04
2	0.47%	110	1.90E-05	10	6.06%	1410	2.43E-04	18	6.97%	1622	2.80E-04
3	0.42%	99	1.70E-05	11	5.93%	1380	2.38E-04	19	6.29%	1463	2.53E-04
4	0.36%	83	1.43E-05	12	5.79%	1347	2.33E-04	20	5.18%	1204	2.08E-04
5	0.61%	141	2.43E-05	13	6.06%	1409	2.43E-04	21	4.08%	950	1.64E-04
6	1.59%	370	6.38E-05	14	6.28%	1461	2.52E-04	22	3.34%	777	1.34E-04
7	3.30%	767	1.32E-04	15	7.07%	1645	2.84E-04	23	2.39%	557	9.61E-05
8	5.29%	1230	2.12E-04	16	7.11%	1654	2.85E-04	24	1.47%	342	5.90E-05
Total										23,260	

Emission Factors - TOG Exhaust

2029

Hour

[illegible]

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.82%	191	4.40E-04	9	6.13%	1426	3.29E-03	17	6.98%	1624	3.75E-03
2	0.47%	110	2.53E-04	10	6.06%	1410	3.25E-03	18	6.97%	1622	3.74E-03
3	0.42%	99	2.28E-04	11	5.93%	1380	3.18E-03	19	6.29%	1463	3.37E-03
4	0.36%	83	1.91E-04	12	5.79%	1347	3.11E-03	20	5.18%	1204	2.78E-03
5	0.61%	141	3.25E-04	13	6.06%	1409	3.25E-03	21	4.08%	950	2.19E-03
6	1.59%	370	8.53E-04	14	6.28%	1461	3.37E-03	22	3.34%	777	1.79E-03
7	3.30%	767	1.77E-03	15	7.07%	1645	3.79E-03	23	2.39%	557	1.28E-03
8	5.29%	1230	2.84E-03	16	7.11%	1654	3.81E-03	24	1.47%	342	7.88E-04
Total										23,260	

2029

Hourl

our

2.52E+00 1

											Line Area						
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area	Area	Emission	Emission	Initial Vertical	(Sigma z)	
											(sq m)	(sq ft)	(g/s/m2)	(lb/hr/ft2)	height (m)	Initial Vertical Dimension	
FUG_NB_STE	San Tomas Expressway Northbound	NB	3	1064.0	0.66	17.0	56	1.3	45	23,260	18,059	194,386	2.069E-07	1.526E-07	2.6	1.21	
FUG_SB_STE	San Tomas Expressway Southbound	SB	3	1050.4	0.65	17.0	56	1.3	45	23,260	17,828	191,901	2.069E-07	1.526E-07	2.6	1.21	
Total											46,520						
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												
Travel Speed (mph)		45															
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															
Brake Wear - Emissions per Vehicle (g/VMT)		0.00384															
Road Dust - Emissions per Vehicle (g/VMT)		0.01507															
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02100															
Emission Factors from CT-EMFAC2021																	
2029 Hour																	
Hour																	
1																	
2																	
3																	

	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.82%	191	7.35E-04	9	6.13%	1426	5.50E-03	17	6.98%	1624	6.26E-03
2	0.47%	110	4.24E-04	10	6.06%	1410	5.44E-03	18	6.97%	1622	6.25E-03
3	0.42%	99	3.80E-04	11	5.93%	1380	5.32E-03	19	6.29%	1463	5.64E-03
4	0.36%	83	3.19E-04	12	5.79%	1347	5.19E-03	20	5.18%	1204	4.64E-03
5	0.61%	141	5.44E-04	13	6.06%	1409	5.43E-03	21	4.08%	950	3.66E-03
6	1.59%	370	1.43E-03	14	6.28%	1461	5.63E-03	22	3.34%	777	3.00E-03
7	3.30%	767	2.96E-03	15	7.07%	1645	6.34E-03	23	2.39%	557	2.15E-03
8	5.29%	1230	4.74E-03	16	7.11%	1654	6.38E-03	24	1.47%	342	1.32E-03
Total										23,260	

	% Per				% Per				% Per		
Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile
1	0.82%	191	7.26E-04	9	6.13%	1426	5.43E-03	17	6.98%	1624	6.18E-03
2	0.47%	110	4.18E-04	10	6.06%	1410	5.37E-03	18	6.97%	1622	6.17E-03
3	0.42%	99	3.76E-04	11	5.93%	1380	5.25E-03	19	6.29%	1463	5.57E-03
4	0.36%	83	3.15E-04	12	5.79%	1347	5.13E-03	20	5.18%	1204	4.58E-03
5	0.61%	141	5.37E-04	13	6.06%	1409	5.36E-03	21	4.08%	950	3.61E-03
6	1.59%	370	1.41E-03	14	6.28%	1461	5.56E-03	22	3.34%	777	2.96E-03
7	3.30%	767	2.92E-03	15	7.07%	1645	6.26E-03	23	2.39%	557	2.12E-03
8	5.29%	1230	4.68E-03	16	7.11%	1654	6.29E-03	24	1.47%	342	1.30E-03
Total										23,260	

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st (5ft - 1.5m) & 2nd (17ft - 5.2m) Floor Receptor Heights**

Emission Year	2029
Receptor Information	Maximum On-Site Receptor
Number of Receptors	183
Receptor Height	1st (1.5m) & 2nd (5.2m) Floors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2013-2017	0.0027	0.2196	0.3448	1st Floor
2013-2017	0.0023	0.1164	0.1728	2nd Floor

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2013-2017	0.3787	0.3623	0.0164	1st Floor
2013-2017	0.2008	0.1921	0.0087	2nd Floor

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0027	0.2196	0.3448	0.037	0.017	0.0016	0.06
1	1	0 - 1	2029	10	0.0027	0.2196	0.3448	0.443	0.206	0.0190	0.67
2	1	1 - 2	2030	10	0.0027	0.2196	0.3448	0.443	0.206	0.0190	0.67
3	1	2 - 3	2031	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
4	1	3 - 4	2032	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
5	1	4 - 5	2033	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
6	1	5 - 6	2034	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
7	1	6 - 7	2035	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
8	1	7 - 8	2036	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
9	1	8 - 9	2037	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
10	1	9 - 10	2038	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
11	1	10 - 11	2039	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
12	1	11 - 12	2040	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
13	1	12 - 13	2041	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
14	1	13 - 14	2042	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
15	1	14 - 15	2043	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
16	1	15 - 16	2044	3	0.0027	0.2196	0.3448	0.070	0.032	0.0030	0.11
17	1	16 - 17	2045	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
18	1	17 - 18	2046	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
19	1	18 - 19	2047	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
20	1	19 - 20	2048	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
21	1	20 - 21	2049	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
22	1	21 - 22	2050	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
23	1	22 - 23	2051	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
24	1	23 - 24	2052	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
25	1	24 - 25	2053	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
26	1	25 - 26	2054	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
27	1	26 - 27	2055	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
28	1	27 - 28	2056	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
29	1	28 - 29	2057	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
30	1	29 - 30	2058	1	0.0027	0.2196	0.3448	0.008	0.004	0.0003	0.01
Total Increased Cancer Risk								2.01	0.933	0.086	3.03

* Third trimester of pregnancy

Maximum
Hazard Index 0.001 Fugitive PM2.5 0.36 Total PM2.5 0.38

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - With MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0008	0.2196	0.3448	0.011	0.017	0.0016	0.03
1	1	0 - 1	2029	10	0.0008	0.2196	0.3448	0.133	0.206	0.0190	0.36
2	1	1 - 2	2030	10	0.0008	0.2196	0.3448	0.133	0.206	0.0190	0.36
3	1	2 - 3	2031	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
4	1	3 - 4	2032	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
5	1	4 - 5	2033	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
6	1	5 - 6	2034	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
7	1	6 - 7	2035	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
8	1	7 - 8	2036	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
9	1	8 - 9	2037	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
10	1	9 - 10	2038	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
11	1	10 - 11	2039	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
12	1	11 - 12	2040	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
13	1	12 - 13	2041	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
14	1	13 - 14	2042	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
15	1	14 - 15	2043	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
16	1	15 - 16	2044	3	0.0008	0.2196	0.3448	0.021	0.032	0.0030	0.06
17	1	16 - 17	2045	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
18	1	17 - 18	2046	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
19	1	18 - 19	2047	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
20	1	19 - 20	2048	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
21	1	20 - 21	2049	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
22	1	21 - 22	2050	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
23	1	22 - 23	2051	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
24	1	23 - 24	2052	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
25	1	24 - 25	2053	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
26	1	25 - 26	2054	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
27	1	26 - 27	2055	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
28	1	27 - 28	2056	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
29	1	28 - 29	2057	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
30	1	29 - 30	2058	1	0.0008	0.2196	0.3448	0.002	0.004	0.0003	0.01
Total Increased Cancer Risk								0.60	0.933	0.086	1.62

* Third trimester of pregnancy

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

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - San Tomas Expy Cancer Risk & PM2.5
Impacts at On-Site 2nd Floor Receptors - 5.2m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0023	0.1164	0.1728	0.031	0.009	0.0008	0.04
1	1	0 - 1	2029	10	0.0023	0.1164	0.1728	0.378	0.109	0.0095	0.50
2	1	1 - 2	2030	10	0.0023	0.1164	0.1728	0.378	0.109	0.0095	0.50
3	1	2 - 3	2031	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
4	1	3 - 4	2032	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
5	1	4 - 5	2033	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
6	1	5 - 6	2034	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
7	1	6 - 7	2035	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
8	1	7 - 8	2036	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
9	1	8 - 9	2037	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
10	1	9 - 10	2038	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
11	1	10 - 11	2039	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
12	1	11 - 12	2040	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
13	1	12 - 13	2041	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
14	1	13 - 14	2042	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
15	1	14 - 15	2043	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
16	1	15 - 16	2044	3	0.0023	0.1164	0.1728	0.059	0.017	0.0015	0.08
17	1	16-17	2045	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
18	1	17-18	2046	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
19	1	18-19	2047	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
20	1	19-20	2048	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
21	1	20-21	2049	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
22	1	21-22	2050	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
23	1	22-23	2051	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
24	1	23-24	2052	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
25	1	24-25	2053	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
26	1	25-26	2054	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
27	1	26-27	2055	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
28	1	27-28	2056	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
29	1	28-29	2057	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
30	1	29-30	2058	1	0.0023	0.1164	0.1728	0.007	0.002	0.0002	0.01
Total Increased Cancer Risk								1.71	0.495	0.043	2.25

* Third trimester of pregnancy

Maximum
Hazard Index 0.0005
Fugitive PM2.5 0.19
Total PM2.5 0.20

Analysis Year = 2029						
Vehicles Type	2024 Caltrans Vehicles (veh/day)	2029 Vehicles (veh/day)				
Total	11,855	12,448				
Increase From 2024		1.05				
Vehicles/Direction		6,224				
Avg Vehicles/Hour/Direction		259				
Traffic Data Year = 2024						
Project Traffic - Cumulative + Project		Total	Trucks by Axle			
2022 Caltrans Truck Percentages from I-280	AADT Total	Truck	2	3	4	5
Pruneridge & San Tomas Expy	11,855	368	176	64	18	110
			47.90%	17.40%	4.80%	29.90%
Percent of Total Vehicles		3.10%	1.48%	0.54%	0.15%	0.93%
Traffic Increase per Year (%) = 1.00%						

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					(Sigma z) Initial Vertical Dimension	
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)		
DPM_EB_PRU	Pruneridge Avenue Eastbound	EB	2	902.5	0.56	13.3	43.7	3.4	35	6,224	12,017	129,350	8.606E-10	6.345E-10	6.8	3.16	
DPM_WB_PRU	Pruneridge Avenue Westbound	WB	2	905.5	0.56	13.3	43.7	3.4	35	6,224	12,057	129,780	8.606E-10	6.345E-10	6.8	3.16	
Total										12,448							
Emission Factors - DPM																	
Speed Category Travel Speed (mph) Emissions per Vehicle (g/VMT)				1	2	3	4										
				35													
				0.00026													

Emission Factors from CT-EMFAC2021

[illegible][illegible]

Emission Factors - PM2.5

2029
Hourl

Hour

[illegible][illegible]

Emission Factors - TCG Exhaust

2029

Hour

[illegible][illegible]

Emission Factors - PM2.5 - Evaporative TOG

2029

Emission Factors from CT-EMFAC2021

7.35E-01 1

[illegible][illegible]

										Line Area						(Sigma z)	
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	Vertical Dimension	
FUG_EB_PRU	Pruneridge Avenue Eastbound	EB	2	902.5	0.56	13.3	44	1.3	35	6,224	12,017	129,350	7.568E-08	5.580E-08	2.6	1.21	
FUG_WB_PRU	Pruneridge Avenue Westbound	WB	2	905.5	0.56	13.3	44	1.3	35	6,224	12,057	129,780	7.568E-08	5.580E-08	2.6	1.21	
Total										12,448							
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												2029
Travel Speed (mph)		35															Hour
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															1
Brake Wear - Emissions per Vehicle (g/VMT)		0.00536															2
Road Dust - Emissions per Vehicle (g/VMT)		0.01507															3
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02251															3.33E-01

Emission Factors from CT-EMFAC2021

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**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st (5ft - 1.5m) & 2nd (17ft - 5.2m) Floor Receptor Heights**

Emission Year	2029
Receptor Information	Maximum On-Site Receptor
Number of Receptors	183
Receptor Height	1st (1.5m) & 2nd (5.2m) Floors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2013-2017	0.0006	0.0659	0.1070	1st Floor
2013-2017	0.0005	0.0356	0.0577	2nd Floor

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2013-2017	0.0984	0.0938	0.0046	1st Floor
2013-2017	0.0531	0.0506	0.0025	2nd Floor

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0006	0.0659	0.1070	0.008	0.005	0.0005	0.01
1	1	0 - 1	2029	10	0.0006	0.0659	0.1070	0.099	0.062	0.0059	0.17
2	1	1 - 2	2030	10	0.0006	0.0659	0.1070	0.099	0.062	0.0059	0.17
3	1	2 - 3	2031	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
4	1	3 - 4	2032	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
5	1	4 - 5	2033	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
6	1	5 - 6	2034	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
7	1	6 - 7	2035	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
8	1	7 - 8	2036	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
9	1	8 - 9	2037	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
10	1	9 - 10	2038	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
11	1	10 - 11	2039	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
12	1	11 - 12	2040	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
13	1	12 - 13	2041	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
14	1	13 - 14	2042	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
15	1	14 - 15	2043	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
16	1	15 - 16	2044	3	0.0006	0.0659	0.1070	0.016	0.010	0.0009	0.03
17	1	16-17	2045	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
18	1	17-18	2046	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
19	1	18-19	2047	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
20	1	19-20	2048	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
21	1	20-21	2049	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
22	1	21-22	2050	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
23	1	22-23	2051	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
24	1	23-24	2052	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
25	1	24-25	2053	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
26	1	25-26	2054	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
27	1	26-27	2055	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
28	1	27-28	2056	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
29	1	28-29	2057	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
30	1	29-30	2058	1	0.0006	0.0659	0.1070	0.002	0.001	0.0001	0.00
Total Increased Cancer Risk								0.45	0.280	0.027	0.75

* Third trimester of pregnancy

Maximum
Hazard Index 0.0001 Fugitive PM2.5 0.09 Total PM2.5 0.10

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - With MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0002	0.0659	0.1070	0.002	0.005	0.0005	0.01
1	1	0 - 1	2029	10	0.0002	0.0659	0.1070	0.030	0.062	0.0059	0.10
2	1	1 - 2	2030	10	0.0002	0.0659	0.1070	0.030	0.062	0.0059	0.10
3	1	2 - 3	2031	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
4	1	3 - 4	2032	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
5	1	4 - 5	2033	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
6	1	5 - 6	2034	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
7	1	6 - 7	2035	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
8	1	7 - 8	2036	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
9	1	8 - 9	2037	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
10	1	9 - 10	2038	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
11	1	10 - 11	2039	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
12	1	11 - 12	2040	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
13	1	12 - 13	2041	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
14	1	13 - 14	2042	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
15	1	14 - 15	2043	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
16	1	15 - 16	2044	3	0.0002	0.0659	0.1070	0.005	0.010	0.0009	0.02
17	1	16-17	2045	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
18	1	17-18	2046	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
19	1	18-19	2047	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
20	1	19-20	2048	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
21	1	20-21	2049	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
22	1	21-22	2050	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
23	1	22-23	2051	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
24	1	23-24	2052	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
25	1	24-25	2053	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
26	1	25-26	2054	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
27	1	26-27	2055	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
28	1	27-28	2056	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
29	1	28-29	2057	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
30	1	29-30	2058	1	0.0002	0.0659	0.1070	0.001	0.001	0.0001	0.00
Total Increased Cancer Risk								0.13	0.280	0.027	0.44

* Third trimester of pregnancy

Maximum
Hazard Index 0.00004
Fugitive PM2.5 0.03
Total PM2.5 0.03

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Pruneridge Ave Cancer Risk & PM2.5
Impacts at On-Site 2nd Floor Receptors - 5.2m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0005	0.0356	0.0577	0.007	0.003	0.0003	0.01
1	1	0 - 1	2029	10	0.0005	0.0356	0.0577	0.085	0.033	0.0032	0.12
2	1	1 - 2	2030	10	0.0005	0.0356	0.0577	0.085	0.033	0.0032	0.12
3	1	2 - 3	2031	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
4	1	3 - 4	2032	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
5	1	4 - 5	2033	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
6	1	5 - 6	2034	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
7	1	6 - 7	2035	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
8	1	7 - 8	2036	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
9	1	8 - 9	2037	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
10	1	9 - 10	2038	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
11	1	10 - 11	2039	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
12	1	11 - 12	2040	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
13	1	12 - 13	2041	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
14	1	13 - 14	2042	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
15	1	14 - 15	2043	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
16	1	15 - 16	2044	3	0.0005	0.0356	0.0577	0.013	0.005	0.0005	0.02
17	1	16-17	2045	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
18	1	17-18	2046	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
19	1	18-19	2047	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
20	1	19-20	2048	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
21	1	20-21	2049	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
22	1	21-22	2050	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
23	1	22-23	2051	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
24	1	23-24	2052	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
25	1	24-25	2053	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
26	1	25-26	2054	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
27	1	26-27	2055	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
28	1	27-28	2056	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
29	1	28-29	2057	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
30	1	29-30	2058	1	0.0005	0.0356	0.0577	0.001	0.001	0.0001	0.00
Total Increased Cancer Risk								0.39	0.151	0.014	0.55

* Third trimester of pregnancy

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

Analysis Year = 2029									
Vehicles Type	2024 Caltrans Vehicles (veh/day)	2029 Vehicles (veh/day)							
Total	10,455	10,978							
Increase From 2024			1.05						
Vehicles/Direction			5,489						
Avg Vehicles/Hour/Direction			229						
Traffic Data Year = 2024									
Project Traffic - Cumulative + Project	AADT Total	Total Truck	Trucks by Axle				324	Trucks	100%
2022 Caltrans Truck Percentages from I-280			2	3	4	5			
Pruneridge & San Tomas Expy	10,455	324	155	56	16	97	1.5%	MDT	Truck 1
			47.90%	17.40%	4.80%	29.90%	1.6%	HDT	Truck 2
Percent of Total Vehicles		3.10%	1.48%	0.54%	0.15%	0.93%	3.1%	Total	
Traffic Increase per Year (%) = 1.00%							96.9%	Other	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					(Sigma z) Initial Vertical Dimension	
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)		
DPM_NB_SAR	Saratoga Avenue Northbound	NB	2	1014.6	0.63	13.3	43.7	3.4	35	5,489	13,510	145,416	7.589E-10	5.596E-10	6.8	3.16	
DPM_SB_SAR	Saratoga Avenue Southbound	SB	2	1030.7	0.64	13.3	43.7	3.4	35	5,489	13,724	147,724	7.589E-10	5.596E-10	6.8	3.16	
Total										10,978							
Emission Factors - DPM																	
Speed Category Travel Speed (mph) Emissions per Vehicle (g/VMT)				1	2	3	4										
				35													
				0.00026													

Emission Factors from CT-EMFAC2021

[illegible][illegible]

Emission Factors - PM2.5

2029
Hourl

Hour

[illegible][illegible]

Emission Factors - TOG Exhaust

2029

Hour

[illegible][illegible]

Emission Factors - PM2.5 - Evaporative TOG

2029

Emission Factors from CT-EMFAC2021

7.29E-01 1

[illegible][illegible]

											Line Area					(Sigma z) Initial Vertical Dimension	
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)		
FUG_NB_SAR	Saratoga Avenue Northbound	NB	2	1014.6	0.63	13.3	44	1.3	35	5,489	133,510	145,416	6.675E-08	4.921E-08	2.6	1.21	
FUG_SB_SAR	Saratoga Avenue Southbound	SB	2	1030.7	0.64	13.3	44	1.3	35	5,489	133,724	147,724	6.675E-08	4.921E-08	2.6	1.21	
										Total	10,978						
Emission Factors - Fugitive PM2.5																	
Speed Category		1	2	3	4												
Travel Speed (mph)		35															
Tire Wear - Emissions per Vehicle (g/VMT)		0.00209															
Brake Wear - Emissions per Vehicle (g/VMT)		0.00536															
Road Dust - Emissions per Vehicle (g/VMT)		0.01507															
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)		0.02251															
Emission Factors from CT-EMFAC2021																2029 Hour	
																Hour	
																1	
																2	
																3	

[illegible]

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	0.82%	45	1.80E-04	9	6.13%	336	1.35E-03	17	6.98%	383	1.54E-03
2	0.47%	26	1.04E-04	10	6.06%	333	1.33E-03	18	6.97%	383	1.53E-03
3	0.42%	23	9.32E-05	11	5.93%	326	1.30E-03	19	6.29%	345	1.38E-03
4	0.36%	20	7.83E-05	12	5.79%	318	1.27E-03	20	5.18%	284	1.14E-03
5	0.61%	33	1.33E-04	13	6.06%	332	1.33E-03	21	4.08%	224	8.97E-04
6	1.59%	87	3.50E-04	14	6.28%	345	1.38E-03	22	3.34%	183	7.34E-04
7	3.30%	181	7.25E-04	15	7.07%	388	1.56E-03	23	2.39%	131	5.26E-04
8	5.29%	290	1.16E-03	16	7.11%	390	1.56E-03	24	1.47%	81	3.23E-04
Total										5,489	

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 1st (5ft - 1.5m) & 2nd (17ft - 5.2m) Floor Receptor Heights**

Emission Year	2029
Receptor Information	Maximum On-Site Receptor
Number of Receptors	183
Receptor Height	1st (1.5m) & 2nd (5.2m) Floors
Receptor Distances	7 meter grid spacing in residential areas

Meteorological Conditions

Bay Area Air District San Jose Airport Met Data	2013-2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

On-Site Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)			
	DPM	Exhaust TOG	Evaporative TOG	
2013-2017	0.0001	0.0105	0.0171	1st Floor
2013-2017	0.0001	0.0090	0.0146	2nd Floor

On-Site PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)			
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5	
2013-2017	0.0157	0.0150	0.0007	1st Floor
2013-2017	0.0135	0.0128	0.0006	2nd Floor

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0001	0.0105	0.0171	0.002	0.001	0.0001	0.00
1	1	0 - 1	2029	10	0.0001	0.0105	0.0171	0.021	0.010	0.0009	0.03
2	1	1 - 2	2030	10	0.0001	0.0105	0.0171	0.021	0.010	0.0009	0.03
3	1	2 - 3	2031	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
4	1	3 - 4	2032	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
5	1	4 - 5	2033	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
6	1	5 - 6	2034	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
7	1	6 - 7	2035	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
8	1	7 - 8	2036	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
9	1	8 - 9	2037	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
10	1	9 - 10	2038	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
11	1	10 - 11	2039	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
12	1	11 - 12	2040	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
13	1	12 - 13	2041	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
14	1	13 - 14	2042	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
15	1	14 - 15	2043	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
16	1	15 - 16	2044	3	0.0001	0.0105	0.0171	0.003	0.002	0.0001	0.01
17	1	16-17	2045	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
18	1	17-18	2046	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
19	1	18-19	2047	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
20	1	19-20	2048	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
21	1	20-21	2049	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
22	1	21-22	2050	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
23	1	22-23	2051	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
24	1	23-24	2052	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
25	1	24-25	2053	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
26	1	25-26	2054	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
27	1	26-27	2055	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
28	1	27-28	2056	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
29	1	28-29	2057	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
30	1	29-30	2058	1	0.0001	0.0105	0.0171	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.10	0.045	0.004	0.15

* Third trimester of pregnancy

Maximum
Hazard Index 0.00003
Fugitive PM2.5 0.01
Total PM2.5 0.02

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Cancer Risk & PM2.5
Impacts at On-Site 1st Floor Receptors - 1.5m receptor heights - With MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.00004	0.0105	0.0171	0.001	0.001	0.0001	0.00
1	1	0 - 1	2029	10	0.00004	0.0105	0.0171	0.006	0.010	0.0009	0.02
2	1	1 - 2	2030	10	0.00004	0.0105	0.0171	0.006	0.010	0.0009	0.02
3	1	2 - 3	2031	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
4	1	3 - 4	2032	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
5	1	4 - 5	2033	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
6	1	5 - 6	2034	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
7	1	6 - 7	2035	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
8	1	7 - 8	2036	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
9	1	8 - 9	2037	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
10	1	9 - 10	2038	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
11	1	10 - 11	2039	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
12	1	11 - 12	2040	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
13	1	12 - 13	2041	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
14	1	13 - 14	2042	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
15	1	14 - 15	2043	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
16	1	15 - 16	2044	3	0.00004	0.0105	0.0171	0.001	0.002	0.0001	0.00
17	1	16-17	2045	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
18	1	17-18	2046	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
19	1	18-19	2047	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
20	1	19-20	2048	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
21	1	20-21	2049	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
22	1	21-22	2050	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
23	1	22-23	2051	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
24	1	23-24	2052	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
25	1	24-25	2053	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
26	1	25-26	2054	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
27	1	26-27	2055	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
28	1	27-28	2056	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
29	1	28-29	2057	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
30	1	29-30	2058	1	0.00004	0.0105	0.0171	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.03	0.045	0.004	0.08

* Third trimester of pregnancy

Maximum
Hazard Index 0.00001
Fugitive PM2.5 0.004
Total PM2.5 0.005

**Pruneridge Golf Course, 400 Saratoga Ave, Santa Clara, CA - Saratoga Ave Cancer Risk & PM2.5
Impacts at On-Site 2nd Floor Receptors - 5.2m receptor heights - Without MERV13
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

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

Values

Age → Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
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	Age	Year	Age Sensitivity Factor		Exhaust	Evaporative	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM	TOG	TOG				
0	0.25	-0.25 - 0*	2029	10	0.0001	0.0090	0.0146	0.002	0.001	0.0001	0.00
1	1	0 - 1	2029	10	0.0001	0.0090	0.0146	0.020	0.008	0.0008	0.03
2	1	1 - 2	2030	10	0.0001	0.0090	0.0146	0.020	0.008	0.0008	0.03
3	1	2 - 3	2031	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
4	1	3 - 4	2032	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
5	1	4 - 5	2033	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
6	1	5 - 6	2034	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
7	1	6 - 7	2035	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
8	1	7 - 8	2036	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
9	1	8 - 9	2037	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
10	1	9 - 10	2038	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
11	1	10 - 11	2039	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
12	1	11 - 12	2040	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
13	1	12 - 13	2041	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
14	1	13 - 14	2042	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
15	1	14 - 15	2043	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
16	1	15 - 16	2044	3	0.0001	0.0090	0.0146	0.003	0.001	0.0001	0.00
17	1	16-17	2045	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
18	1	17-18	2046	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
19	1	18-19	2047	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
20	1	19-20	2048	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
21	1	20-21	2049	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
22	1	21-22	2050	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
23	1	22-23	2051	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
24	1	23-24	2052	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
25	1	24-25	2053	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
26	1	25-26	2054	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
27	1	26-27	2055	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
28	1	27-28	2056	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
29	1	28-29	2057	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
30	1	29-30	2058	1	0.0001	0.0090	0.0146	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.09	0.038	0.004	0.13

* Third trimester of pregnancy

Maximum
Hazard Index
Fugitive PM2.5
Total PM2.5
0.00002 0.01 0.01



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

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

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

[Click here for guidance on conducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.](#)

[Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.](#)

Table A: Requester Contact Information

Date of Request	4/17/2024
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	400 Saratoga Ave
Address	400 Saratoga Ave
City	Santa Clara
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	316 du
Comments:	

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

1. Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.
2. Download and install the free program Google Earth, <http://www.google.com/earth/download/ge/>, and then download the county specific Google Earth stationary source application files from the District's website, <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.
5. List the stationary source information in **Table B** - Use section only.
6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.
7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

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

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

Table B: Google Earth data											Project MEI			
Distance from Receptor (feet) or MEI ¹	Plant No.	Facility Name	Address	Cancer Risk ²	Hazard Risk ²	PM _{2.5} ²	Source No. ³	Type of Source ⁴	Fuel Code ⁵	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
670	18310	Lucky #774	234 Saratoga Avenue	0.03	--	--		Generator		2022 Dataset	0.08	0.002	#VALUE!	#VALUE!
1775	18701	City of Santa Clara - Fire Statior	2323 Pruneridge Avenue	2.26	--	--		Generator		2022 Dataset	0.04	0.09	#VALUE!	#VALUE!
1150	108890-1	Pruneridge Golf Club	400 Saratoga Ave	0.02	--	--		Gas Dispensing Facility		Public Records Request, CARB Tool	NA	0.01	0.01	#VALUE!
950	112370-1	APRO LLC dba United Pacific #	298 Saratoga Ave	11.02	0.05	--		Gas Dispensing Facility		Public Records Request, CARB Tool	NA	0.30	0.03	#VALUE!

Footnotes:

1. Maximally exposed individual

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

8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.

11. Further information about common sources:

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

Date last updated:
03/13/2018

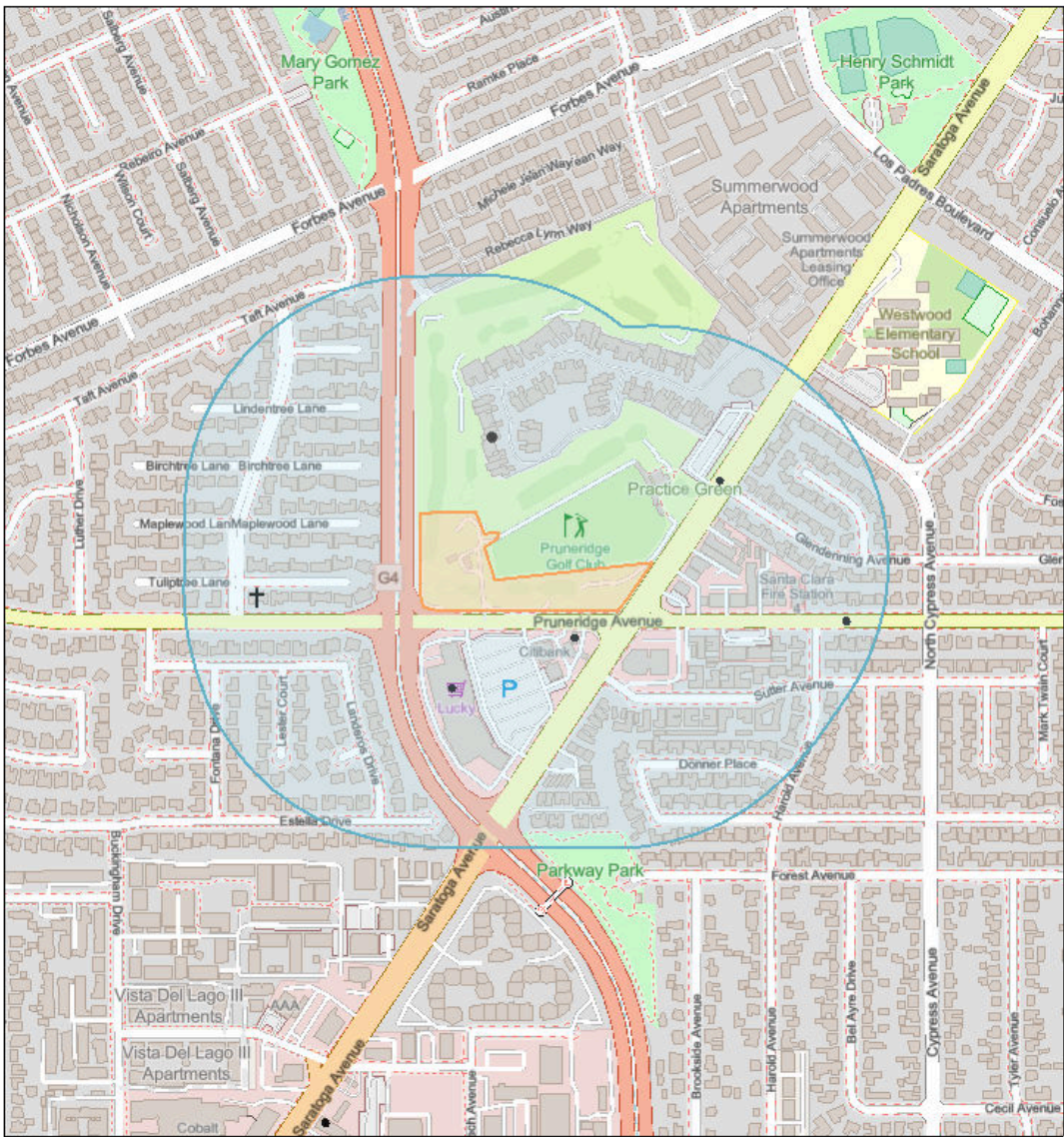
Project Site					
Distance from Receptor (feet) or MEI ¹	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
220	18310	0.31	0.01	#VALUE!	#VALUE!
975	18701	0.04	0.09	#VALUE!	#VALUE!
560	108890-1	NA	0.030	0.11	#VALUE!
250	112370-1	NA	3.28	0.53	#VALUE!

Screening Report

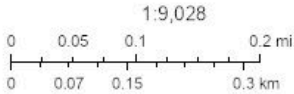
Area of Interest (AOI) Information

Area : 5,923,914.15 ft²

Apr 22 2025 10:21:06 Pacific Daylight Time



- Permitted Stationary Sources



Map data © OpenStreetMap contributors, Microsoft, Facebook, Google, Esri
Community Maps contributors, Map layer by Esri

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	4	N/A	N/A

Permitted Stationary Sources

#	Address	Cancer_Ris	Chronic_Ha	City	County
1	234 Saratoga Avenue	0.03	0.00	Santa Clara	Santa Clara
2	2323 Pruneridge Avenue	2.26	0.00	Santa Clara	Santa Clara
3	400 Saratoga Ave	0.02	0.00	Santa Clara	Santa Clara
4	298 Saratoga Ave	11.02	0.05	Santa Clara	Santa Clara

#	Details	Facility_I	Facility_N	Latitude	Longitude
1	Generator	18310	Lucky #774	37.33	-121.97
2	Generator	18701	City of Santa Clara - Fire Station #4	37.33	-121.96
3	Gas Dispensing Facility	108890-1	Pruneridge Golf Club	37.33	-121.96
4	Gas Dispensing Facility	112370-1	Boyett Petroleum Boyett site #19	37.33	-121.97

#	NAICS	NAICS_Indu	NAICS_Sect	NAICS_Subs	PM25
1	445110	Supermarkets and Other Grocery (except Convenience) Stores	Retail Trade	Food and Beverage Stores	0.00
2	922190	Other Justice, Public Order, and Safety Activities	Public Administration	Justice, Public Order, and Safety Activities	0.00
3	713910	Golf Courses and Country Clubs	Arts, Entertainment, and Recreation	Amusement, Gambling, and Recreation Industries	0.00
4	447110	Gasoline Stations with Convenience Stores	Retail Trade	Gasoline Stations	0.00

#	State	Zip	Count
1	CA	95050	1
2	CA	95050	1
3	CA	95050	1
4	CA	95050	1

NOTE: A larger buffer than 1,000 may be warranted depending on proximity to significant sources.

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

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	87000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	500	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	350	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	350	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	350	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.
Risk Value	Results	
Max Residential Cancer Risk (chances/million)	0.01	
Max Worker Cancer Risk (chances/million)	0.00	
Chronic HI	0.00	
Acute HI	0.01	

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

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	87000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	500	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	170	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	170	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	170	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.
Risk Value	Results	
Max Residential Cancer Risk (chances/million)	0.03	
Max Worker Cancer Risk (chances/million)	0.00	
Chronic HI	0.00	
Acute HI	0.11	

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

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	2830000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	700	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	290	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	290	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	290	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.
Risk Value	Results	
Max Residential Cancer Risk (chances/million)	0.30	
Max Worker Cancer Risk (chances/million)	0.02	
Chronic HI	0.00	
Acute HI	0.03	

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

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	2830000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	700	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	75	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	75	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	75	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.
Risk Value	Results	
Max Residential Cancer Risk (chances/million)	3.28	
Max Worker Cancer Risk (chances/million)	0.27	
Chronic HI	0.01	
Acute HI	0.53	