

924-940 SAN RAFAEL AVENUE AIR QUALITY & GREENHOUSE GAS ASSESSMENT

Mountain View, 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 located at 924-940 San Rafael Avenue in Mountain View, California. Air quality impacts and GHG emissions would be associated with 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 predicted using appropriate computer models. In addition, the potential 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 1.80-acre project site is currently comprised of two vacant commercial buildings and an associated parking lot. The project proposes to demolish the existing uses and construct 36 rowhouse-style condominiums totaling approximately 80,231 square feet (sf). Each unit would include a two-car parking garage. The project would also include 9 guest parking spaces. Construction is proposed from approximately January 2026 through February 2027.

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 criteria pollutants now 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). In 1997, The Environmental Protection Agency (EPA) added fine particulate matter (PM_{2.5}) as a criteria pollutant. The air pollutants for which standards have been established are considered the most prevalent air pollutants known to be hazardous to human health. California ambient air quality standards (CAAQS) include the NAAQS pollutants and also hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. These additional CAAQS pollutants tend to have unique sources and are not typically included in environmental air quality assessments. In addition, lead concentrations have decreased dramatically since it was removed from motor vehicle fuels. The Bay Area has attained the CO standard and monitoring data from the last 30 years show relatively low concentrations throughout the Bay Area. Therefore, CO is not an air quality issue for land use type projects such as this one.

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

Air Pollutants of Concern

There are two categories of pollutants analyzed for California Environmental Quality Act (CEQA) compliance; criteria pollutants and toxic air contaminants (TACs). Criteria pollutants are those which have ambient air quality standards established by either the federal government (i.e., US EPA) or the State. TACs are pollutants that are known to either increase cancer risk or have non-cancer health impacts in high concentrations.

Criteria Pollutants – Ozone and Particulate Matter

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 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.²

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).³ 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

² Bay Area Air District, 2022 CEQA Air Quality Guidelines, Appendix A, p40.

³ CARB, *Summary: Diesel Particulate Matter Health Impacts*, Web: https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts#footnote1_7yob8j5.

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 CEQA guidance.⁴

The Air District also considers PM_{2.5} to be a TAC due to the adverse health effects caused by PM_{2.5} exposure even at low concentrations. As a result, they have developed CEQA health risk thresholds to address exposure to increased concentrations of PM_{2.5}.⁵

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 adjacent single-family homes to the south and opposite San Rafael Avenue to the east. There are additional sensitive receptors in the residences surrounding the site at further distances. 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

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 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

⁴ 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.

⁵ Bay Area Air District, 2022 CEQA Air Quality Guidelines, Appendix A, p40.

vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.⁶

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The 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 2023.⁷ 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.).⁸ 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, restringing the adding of older vehicles into fleets and banning older Tiered engines, and requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates.⁹ 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.

⁶ USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

⁷ Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: November 21, 2014.

⁸ CARB, Web: <https://ww2.arb.ca.gov/resources/fact-sheets/overview-amendments-use-road-diesel-fueled-fleets-regulation>

⁹ CARB, Web: <https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-diesel-regulation>

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*.¹⁰ 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.

2022 Building Energy Efficiency Standards

The California Energy Commission's 2022 Building Energy Efficiency Standards,¹¹ also known as Title 24, Part 6, focuses on reducing energy consumption and GHG emissions in new buildings. These standards emphasize heat pumps, electric-ready requirements for new homes, and expanded solar photovoltaic (PV) and battery storage mandates. They also strengthen ventilation standards to improve indoor air quality. This now includes installing air filtration systems with a Minimum Efficiency Reporting Value (MERV) 13 standard for all residential and nonresidential land uses.

Project Air Quality Conditions

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

Bay Area Air District

The Bay Area 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.

¹⁰ California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

¹¹ California Energy Commission, *2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, August 2022. Web: https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010_CMF.pdf

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.¹² The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program has been implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses has been used to develop emission reduction activities in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Seven areas have been identified by 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 not within any of the CARE areas.

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.¹³ 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 20th percentile on CalEnviroScreen.¹⁴

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 of direct GHG.

Clean Air Plan

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

¹² See Bay Area Air District: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>.

¹³ 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.

¹⁴ OEHA, CalEnviroScreen 4.0 Maps <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

precursor emissions (i.e., ROG and NO_x), particulate matter (PM₁₀ and PM_{2.5}) and GHG emissions.

Bay Area 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 1.¹⁵ 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.

¹⁵ Bay Area Air District, 2023. *2022 CEQA Guidelines*. April.

Table 1. Bay Area Air District CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds			
	Average Daily Emissions (lbs./day)			
ROG	54			
NO _x	54			
PM ₁₀	82 (Exhaust)			
PM _{2.5}	54 (Exhaust)			
CO	Not Applicable			
Fugitive Dust (PM ₁₀ /PM _{2.5})	Best Management Practices (BMPs)*			
Health Risks and Hazards	Single Sources / Individual Projects		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 <u>or</u> B)	A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. 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. 2. Transportation a. 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: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. 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. VMT = vehicle miles traveled. GHG = greenhouse gas. * The 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 Mountain View 2030 General Plan

The Mountain View 2030 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution, toxic air contaminants, and GHG emissions. The following goals, policies, and actions are applicable to the proposed project:

Climate Change

INC 12.1: Emissions reduction target. Maintain a greenhouse gas emissions reduction target.

INC 12.2: Emissions reduction strategies. Develop cost-effective strategies for reducing greenhouse gas emissions.

INC 12.3: Adaptation strategies. Develop strategies for adapting to climate change in partnership with local and regional agencies.

Air Quality

INC 20.1: Pollution prevention. Discourage mobile and stationary sources of air pollution.

INC 20.2: Collaboration. Participate in state and regional planning efforts to improve air quality.

INC 20.6: Air quality standards. Protect the public and construction workers from construction exhaust and particulate emissions.

INC 20.7: Protect sensitive receptors. Protect the public from substantial pollutant concentrations.

INC 20.8: Offensive odors. Protect residents from offensive odors.

Construction Period Emissions

The project requires the computation of construction criteria pollutant emissions since the project does not meet the Air District's screening criteria for construction related emissions because the project includes demolition. If any construction criteria pollutant emission quantity exceeds an Air District significance threshold, the inclusion of control measures would be required.

The California Emissions Estimator Model (CalEEMod) Version 2022 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 Modeling

Land Use Inputs

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

Table 2. Project Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet (sf) ¹	Acreage
Condo/Townhouse High Rise	36	Dwelling Unit	80,231	1.80
Parking Lot	9	Parking Space	-	

Notes: ¹ Garage square footage is included in the condo/townhouse high rise land use.

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 CalEEMod default information for a project of this type and size that were adjusted to meet the applicant provided total schedule length (included in *Attachment I*). The construction schedule assumed that the earliest start date would be January 2026, and the project would be built over a period of approximately 14 months, or 302 construction workdays. The earliest year of operation was assumed to be 2027.

Construction Truck Traffic Emissions

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

Summary of Computed Construction Emissions

Average daily construction emissions were estimated for the total duration of the project (302 days) since the project construction is anticipated to be just over a year. Table 3 shows the uncontrolled 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, predicted uncontrolled average project construction emissions would not exceed the Air District's significance thresholds during construction.

Table 3. Construction Period Emissions - Uncontrolled

Year	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
<i>Construction Emissions (Tons)</i>				
2026+2027	0.74	1.51	0.05	0.05
<i>Average Daily Construction Emissions (pounds/day)</i>				
2026 (302 construction workdays)	4.92	10.01	0.35	0.32
<i>Air District Thresholds (pounds per day)</i>	54 lbs./day	54 lbs./day	82 lbs./day	54 lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The 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.

Control Measure AQ-1: Include measures to control dust and exhaust during construction.

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

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Control Measure AQ-1

Control Measure AQ-1 is consistent with Air District -recommended basic BMPs for reducing fugitive dust contained in the Air District CEQA Air Quality Guidelines. For this analysis, only the basic set of BMPs are required as the Project emissions and PM_{2.5} impacts were below the Air District thresholds. Enhanced BMPs would be required as control measures if air quality impacts were found to be significant.

Operational Emissions Screening

Chapter 4 of the Air District CEQA Guidelines includes screening guidance for addressing emissions of criteria air pollutants that are based on the size of a project. These screening criteria provide a conservative indication of whether implementing a proposed project could result in emissions of criteria air pollutants that exceed the Air District thresholds. If all screening criteria for air pollutants are met by a proposed project, then a detailed assessment of the project's criteria air pollutant emissions does not need to be performed. The project would meet these operational screening criteria since 1) the project land uses sizes described in Table 2 (36 townhome units) are below the applicable operational screening level sizes shown in the Air District's Guidelines (637 townhome units), 2) the project would not include stationary sources, and 3) operational activities would not overlap with construction activities. Therefore, this project would not exceed the operational criteria air pollutant thresholds and further pollutant analysis are not required.

Health Risk Impacts

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. 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.

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 sources. These sources include on-site construction activity and construction truck hauling. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per Air District guidance,¹⁶ with the sensitive receptors being exposed to project construction 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.

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.

Modeled Sensitive Receptors

Receptors for this assessment included locations where nearby sensitive populations and workers would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences and businesses surrounding the project 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. DPM and PM_{2.5} concentrations were also calculated at adult only 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}.¹⁷ 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.

¹⁶ Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines*, April 2023.

¹⁷ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

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 0.05 tons (105 pounds) and fugitive dust emissions (PM_{2.5}) to be 0.01 tons (23 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 half-a-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.¹⁸ Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions.

Construction Sources

Combustion equipment DPM exhaust emissions were modeled as an array of point sources to reflect construction equipment and trucks operating at the site. These sources included nine-foot release heights (construction equipment exhaust stack height) that were placed at 23 feet (7 meter) intervals throughout the construction site. This resulted in 141 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area. The total DPM emissions were divided into each of the point sources that were spread throughout the project construction site. In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918°F, and an exit velocity of 309 feet per second. Point source plume rise is calculated by the AERMOD dispersion model. Emissions from vehicle travel on- and off-site were also distributed among the point sources throughout the site. The array of point sources used for the modeling are shown in Figure 1.

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.

¹⁸ Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines*, April 2023.

AERMOD Inputs and Meteorological Data

The modeling used a five-year data set (2013 - 2017) of hourly meteorological data from the Moffett Federal Airfield was used with the AERMOD model. The wind rose for Moffett Federal Airfield is shown in Figure 1. Construction emissions were modeled as occurring Monday through Friday between 7:00 a.m. to 6:00 p.m. when most of the construction activities would occur. Annual DPM and PM_{2.5} concentrations from construction activities during the 2026 - 2027 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) were used to represent the breathing height on the first floors of sensitive receptors in nearby residences and worker receptors in nearby businesses.¹⁹

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 196 daily trips²⁰ with most of the trips 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 only adult 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 maximum modeled annual DPM and PM_{2.5} concentrations were identified at nearby receptors to find the maximally exposed individuals (MEI). Results of this assessment indicated that the construction MEI was 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) at an adjacent residence south of the project site. The annual PM_{2.5} concentration MEI was located on the first floor (5 feet above ground) at another adjacent residence south of the site.

¹⁹ Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines*, April 2023.

²⁰ Email Correspondence from Kishann Rai, Assistant Project Manager, David J. Powers & Associates, Inc., August 27, 2025, RE: 924-940 San Rafael Ave- I&R Proposal.

The location of the MEIs and nearby receptors are shown in Figure 1. Table 4 summarizes the maximum cancer risks, PM_{2.5} concentrations, and HI for project's construction activities at the MEIs. *Attachment 2* to this report includes the emission calculations used for the construction area source modeling and the cancer risk calculations.

Health risk impacts are shown in Table 4. The uncontrolled maximum cancer risks from construction activities at the cancer risk MEI would exceed the single-source significance threshold. However, with the incorporation of the *Control Measure AQ-1* and *AQ-2*, the controlled cancer risk would no longer exceed the significance threshold. The annual PM_{2.5} concentration and HI from construction activities would be below the single-source significance thresholds with and without control measures.

Table 4. Project Health Risk Impacts at the Off-Site MEIs

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	20.44 (infant)	0.24	0.02
	Controlled ²	3.70 (infant)	0.08	<0.01
Bay Area Air District Single-Source Threshold		>10.0	>0.3	>1.0
Exceed Threshold?	Uncontrolled	Yes	No	No
	Controlled ²	No	No	No
Maximum Worker Impact - Maximum Annual PM _{2.5} Concentration Impact				
Project Construction	Uncontrolled	0.11 (adult)	0.05	<0.01
	Bay Area Air District Single-Source Threshold		>10.0	>0.3
Exceed Threshold?	Uncontrolled	No	No	No

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

² Construction equipment with Tier 4 Final engines and basic BMPs as Control Measures.

Figure 1. Locations of Project Construction Site, Off-Site Receptors, Maximum TAC Impacts (MEIs), and Moffett Federal Airfield Wind Rose

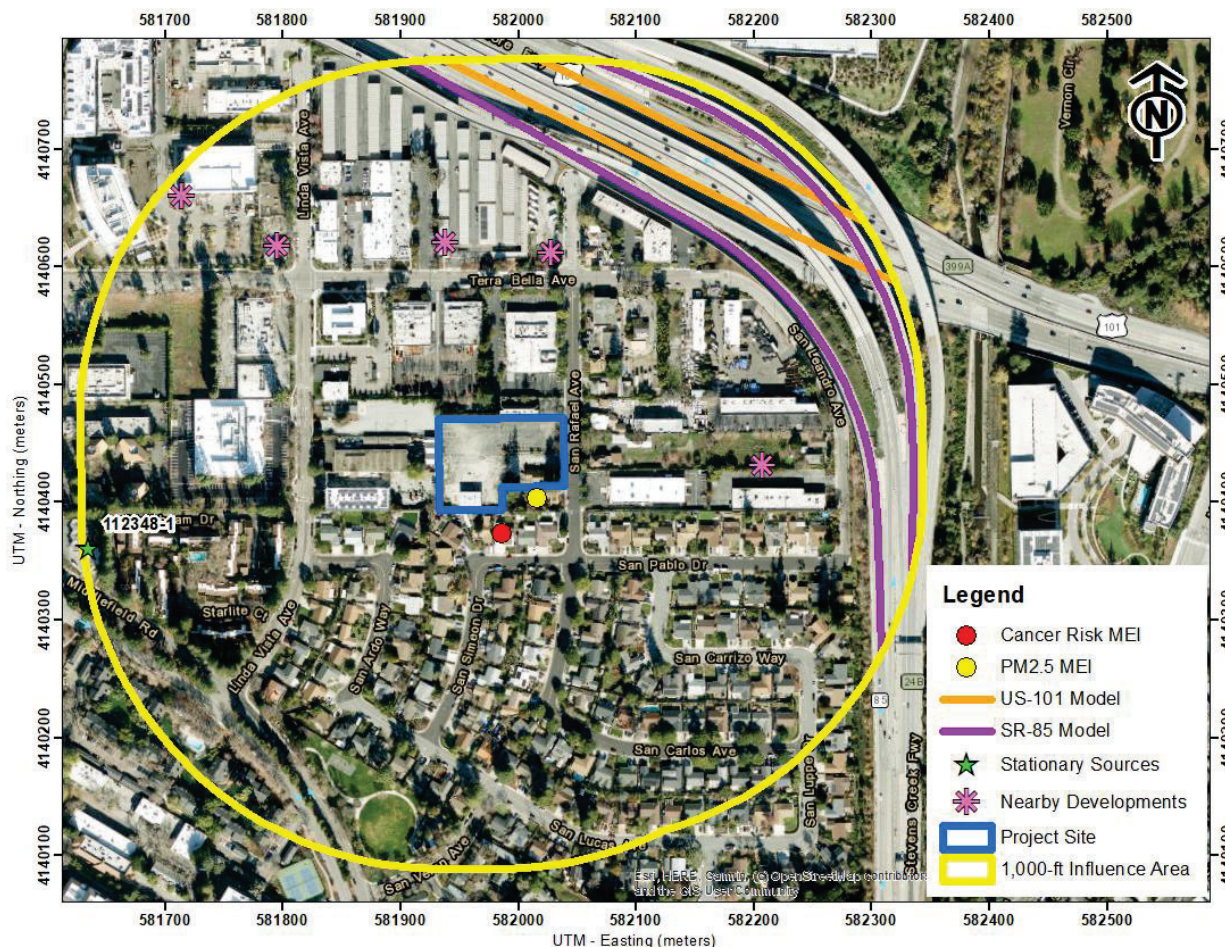


Cumulative Health Risks of all TAC Sources at the Off-Site Project MEIs

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. Two highways, U.S. Highway 101 (US-101) and State Route 85 (SR-85), five nearby developments, and one existing stationary source 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 5. Details of the cumulative screening and health risk calculations are included in *Attachment 3*.

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



Highways – US-101 and SR-85

The project MEIs are located near US-101 and SR-85. A refined analysis of the impacts of TACs and PM_{2.5} to the MEI receptors are necessary to evaluate potential cancer risks and PM_{2.5} concentrations from US-101 and SR-85. A review of the traffic information reported by Caltrans indicates that US-101 traffic includes 205,000 vehicles per day (based on an annual average)²¹ that are about 4.50 percent trucks, of which 2.0 percent are considered diesel heavy duty trucks and 2.5 percent are medium duty trucks.²² A review of the same data indicates that SR-85 includes 67,000 vehicles per day (based on an annual average) that are about 2.00 percent trucks, of which 1.3 percent are considered diesel heavy duty trucks and 0.7 percent are medium duty trucks.

Emission Rates

This analysis involved the development of DPM, organic TACs, and PM_{2.5} emissions for traffic

²¹ Caltrans. 2025. 2022 Traffic Volumes California State Highways. Web: <https://dot.ca.gov/programs/traffic-operations/census>

²² Caltrans. 2025. 2022 Annual Average Daily Truck Traffic on the California State Highway System. Web: <https://dot.ca.gov/programs/traffic-operations/census>

on US-101 and SR-85 using the Caltrans version of the 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 (e.g., TOG), running evaporative losses for TOG, tire and brake wear, and fugitive road dust for PM_{2.5}. All PM_{2.5} emissions from all vehicles were used, rather than just the PM_{2.5} fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce PM_{2.5}. Additionally, PM_{2.5} emissions from vehicle tire and brake wear and from re-entrained roadway dust were included. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2021 emissions data. Inputs to the model include region (i.e., Santa Clara County), type of road (i.e., freeway), Caltrans estimated local truck mix on US-101 and SR-85 (4.50 percent and 2.00 percent),²³ traffic mix assigned by CT-EMFAC2021 for the county, year of analysis (2026 – 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 construction MEI, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2026. 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 2026 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated.

The traffic information reported by Caltrans for US-101 was increased 1 percent per year to 213,200 vehicles per day (based on an annual average) that includes previously described truck mix.²⁴ The same approach was used for SR-85 yielding 69,680 vehicles per day (based on an annual average) that includes the previously described truck mix. Hourly traffic distributions specific to these segments of US-101 and SR-85 were obtained from Caltrans Performance Measurement System (PeMS). PeMS data is collected in real-time from nearly 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California.²⁵ The fraction of traffic volume each hour was calculated and applied to the 2026 average daily traffic volumes calculation to estimate hourly traffic emission rates for US-101 and SR-85.

Based on traffic data from the Caltrans PeMS, traffic speeds during the daytime and nighttime periods were identified. For northbound traffic on US-101, the following was assumed for all vehicles:

- 65 mph – From 12:00 a.m. until 6:00 a.m., and 8:00 p.m. until 12:00 a.m.
- 60 mph – From 6:00 a.m. until 7:00 a.m., 12:00 p.m. until 2:00 p.m., and 7:00 p.m. until 8:00 p.m.

²³ Caltrans. 2025. *2022 Annual Average Daily Truck Traffic on the California State Highways*. Web: <https://dot.ca.gov/programs/traffic-operations/census>

²⁴ Caltrans. 2025. *2022 Annual Average Daily Truck Traffic on the California State Highway System*. Web: <https://dot.ca.gov/programs/traffic-operations/census>.

²⁵ Caltrans. 2025. *Performance Measurement System (PeMS) Data Source*. Web: <https://dot.ca.gov/programs/traffic-operations/mpr/pems-source>

- 55 mph – From 10:00 a.m. until 12:00 p.m., 2:00 p.m. until 4:00 p.m., and 6:00 p.m. until 7:00 p.m.
- 50 mph – From 7:00 a.m. until 10:00 a.m., and 4:00 p.m. until 6:00 p.m.

For southbound traffic on US-101, the following was assumed for all vehicles:

- 65 mph – From 12:00 a.m. until 8:00 a.m., and 8:00 p.m. until 12:00 a.m.
- 60 mph – From 8:00 a.m. until 4:00 p.m., and 7:00 p.m. until 8:00 p.m.
- 55 mph – From 4:00 p.m. until 5:00 p.m., and 6:00 p.m. until 7:00 p.m.
- 50 mph – From 5:00 p.m. until 6:00 p.m.

For northbound traffic on SR-85, the following was assumed for all vehicles:

- 70 mph – From 12:00 a.m. until 7:00 a.m., 1:00 p.m. until 5:00 p.m., and 7:00 p.m. until 12:00 a.m.
- 65 mph – From 7:00 a.m. until 9:00 a.m., 10:00 a.m. until 1:00 p.m., and 5:00 p.m. until 7:00 p.m.
- 60 mph – From 9:00 a.m. until 10:00 a.m.

For southbound traffic on SR-85, the following was assumed for all vehicles:

- 65 mph – From 12:00 a.m. until 4:00 p.m., and 6:00 p.m. until 12:00 a.m.
- 60 mph – From 4:00 p.m. until 6:00 p.m.

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.²⁶ TAC and PM_{2.5} emissions from traffic on US-101 and SR-85 within 1,000 feet of the project site were evaluated as RLINE sources (roadway line sources) for each opposing travel direction on the highways. The same meteorological data and off-site sensitive receptor MEI locations from the previous project impact dispersion modeling were used in the highway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and PM_{2.5} concentrations using 2026 emissions from traffic on the highways were calculated using the model. Concentrations were calculated at the construction MEIs with a receptor height of 5 feet (1.5 meters) to represent the breathing height at the MEI receptors.

Computed Cancer and Non-Cancer Health Impacts

Maximum increased lifetime cancer risks and annual PM_{2.5} concentrations for the MEI receptors were computed using modeled TAC and PM_{2.5} concentrations and the Air District methods and exposure parameters. The traffic-related cancer risk, PM_{2.5} concentration, and HI impacts on the construction MEIs are shown in Table 5. Figure 2 shows the highway links used for the modeling and receptor locations where concentrations were calculated. Details of the emission calculations,

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

dispersion modeling, and cancer risk calculations for the MEI receptors from US-101 and SR-85 traffic 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,²⁷ which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for OEHHHA guidance. One source was identified using this tool, a gasoline dispensing facility. A stationary source information request was submitted to the Air District in order to estimate health risk impacts from the gasoline dispensing facility.

The screening risk and hazard levels provided by the Air District for the stationary source was adjusted for distance using CARB's *Gasoline Station Risk Screening Tool*. The Air District provided the gasoline throughput for the gas dispensing facility near the project site.²⁸ The provided throughput along with the distance between the MEIs and the gas dispensing facility, and the region for the gas station was input into the CARB tool to calculate the cancer risk and hazard index. Health risk impacts from the stationary source upon the MEIs is reported in Table 5.

Construction Risk Impacts from Nearby Developments

A review of the City of Mountain View's Development Projects website for the June 2025 Update²⁹ indicates that the following under review, approved, or under construction projects are located near the proposed project:

- **1020 Terra Bella Avenue** – This project is located approximately 415 feet north of the proposed project and 615 feet from the MEIs. This project is approved to develop a six-story, 108-unit affordable rental housing building and a two-story above grade parking garage. This project was analyzed by *Illingworth & Rodkin, Inc.* and is currently approved for construction. As a result, construction of the 1020 Terra Bella Avenue project could overlap with this project's construction period.
- **1040 Terra Bella Avenue** – This project is located approximately 525 feet north of the proposed project and 725 feet north of the MEIs. This project is approved to develop two personal storage buildings that are six- and four-stories in size. This project was analyzed by *Illingworth & Rodkin, Inc.* and is currently approved for construction. As a result, construction of the 1040 Terra Bella Avenue project could overlap with this project's construction period.

²⁷ Bay Area Air District,

<https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3>

²⁸ Email from Bay Area Air District, August 1, 2025. Subject: "RE_ Public Records No. 2025-06-0246 CRM:0469835"

²⁹ City of Mountain View Development Update – June 2025, Web:

<https://www.mountainview.gov/home/showpublisheddocument/11600/638860176395470000>

- **1110 Terra Bella Avenue & 1012 Linda Vista Avenue** – This project is located approximately 600 feet northwest of the proposed project and 900 feet northwest of the MEIs. This project is under review to develop seven-story, 70-unit 100-percent affordable housing development. This project is currently pending approved and under review. As a result, construction of the 1110 Terra Bella Avenue & 1012 Linda Vista Avenue project could overlap with this project’s construction period.
- **922, 944, & 950 San Leandro Avenue** – This project is located approximately 400 feet east of the proposed project and 450 feet east of the MEIs. This project is under review to develop a 38-unit rowhome housing development. This project was analyzed by *Illingworth & Rodkin, Inc.* and is currently pending approved and under review. As a result, construction of the 922, 944, & 950 San Leandro Avenue project could overlap with this project’s construction period.
- **1001 N. Shoreline Boulevard** – This project is located approximately 650 feet northwest of the proposed project and 950 feet northwest of the MEIs. This project is constructing a seven-story, 203 unit apartment building with two levels of podium parking, a seven-story, 100 unit building with two levels of podium parking, and a six-level parking structure to accommodate the existing 111,443 square foot office building to remain. This project was analyzed by *Illingworth & Rodkin, Inc.* and is currently under construction. As a result, the 1001 N. Shoreline Boulevard project is expected to be completed by the time this project begins construction, so it was not included in the cumulative analysis.

The controlled construction risks and hazard impact values for the 1020 & 1040 Terra Bella Avenue and the 922, 944, & 950 San Leandro Avenue projects were available from their air quality technical reports analyzed by *Illingworth & Rodkin, Inc.*^{30,31} The 1020 & 1040 Terra Bella Avenue projects were analyzed together but are listed separately by the City of Mountain View on their development projects webpage. For developments that did not have available construction impact results at the time of this study, it was assumed the construction risks would be less than the Air District’s single-source thresholds for health risks and hazards. If the nearby developments were more than 500 feet from the project site, the construction risks were assumed to be half of the Air District’s single-source thresholds due to the distance and dispersion between the source and receptors. For the purpose of this analysis, it was conservatively assumed the entire construction period from the proposed project would overlap with these nearby development construction schedules. It is assumed that the maximum construction risk impacts from those projects would occur at the proposed project’s MEIs. This approach likely provides an overestimate of the health risk and hazard levels because it assumes that maximum impacts from the nearby developments occur concurrently with the proposed project. The controlled construction risk impacts for these nearby developments were included in the cumulative risks in Table 5.

³⁰ Illingworth & Rodkin, Inc., *Terra Bella Public Storage & Housing Project Air Quality & Greenhouse Gas Assessment*, Updated November 15, 2022. CEQANet Web Portal, Document URL: <https://ceqanet.opr.ca.gov/2022110590/Attachment/96XWSJ>

³¹ Illingworth & Rodkin, Inc., *922- 944 San Leandro Avenue Construction Emissions & Health Risk Assessment*, Revised April 10, 2025.

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

Table 5 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by project construction (i.e., the MEIs). The project's uncontrolled construction cancer risk exceeds its Air District single-source threshold. With the implementation of *Control Measure AQ-1* and *AQ-2*, the project's cancer risk would be reduced to a level below the single-source threshold and would also not exceed the cumulative-source threshold. The annual PM_{2.5} concentration and HI, uncontrolled and controlled, do not exceed the single-source or cumulative-source thresholds.

Table 5. 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	20.44 (infant)	0.24	0.02
Controlled	3.70 (infant)	0.08	<0.01
Bay Area Air District Single-Source Threshold	>10.0	>0.3	>1.0
Exceed Threshold?			
Uncontrolled	Yes	No	No
Controlled	No	No	No
Cumulative Impacts			
U.S. 101 – ADT 213,200	1.36	0.05	<0.01
S.R. 85 – ADT 69,680	0.44	0.02	<0.01
Shoreline Shell (Facility ID #112348-1, Gas Dispensing Facility), MEIs at 1,100 feet.	0.56	-	0.02
1020 & 1040 Terra Bella Avenue Controlled Construction Risk Impacts	<3.52	<0.06	<0.01
1110 Terra Bella Avenue & 1012 Linda Vista Avenue Controlled Construction Risk Impacts	<5.00	<0.15	<0.50
922, 944, & 950 San Leandro Avenue Controlled Construction Risk Impacts	<3.33	<0.04	<0.01
Cumulative Total			
Uncontrolled	<34.65	<0.56	<0.58
Controlled	<17.91	<0.40	<0.57
Bay Area Air District Cumulative Source Threshold	>100	>0.8	>10.0
Exceed Threshold?			
Uncontrolled	No	No	No
Controlled	No	No	No

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

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

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

1. All construction equipment larger than 50 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 Final emission standards for PM (PM₁₀ and PM_{2.5}), if feasible, otherwise,

Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction DPM emissions

by 60 percent or greater. Elements of the plan could include a combination of some of the following measures:

- Installation of electric power lines during early construction phases to avoid use of diesel portable equipment,
- Use of electrically-powered equipment,
- Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
- Change in construction build-out plans to lengthen phases, and
- Implementation of different building techniques that result in less diesel equipment usage.

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

Effectiveness of Control Measure AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with these measures assuming that all equipment met U.S. EPA Tier 4 Final engine standards and the Air District's basic BMPs for dust control were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 82 percent to 3.70 per million. As a result, the project's construction risks would be reduced below the Air District single-source threshold.

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

A health risk assessment was completed to assess the impact that the existing TAC sources would have on the new proposed sensitive receptors (residents) that the project would introduce. The same TAC sources identified above were used in this health risk assessment.³² On-site health risk results are listed in Table 6. *Attachment 3* includes the screening information, modeling, and health risk calculations used for TAC source impacts upon the proposed on-site sensitive receptors.

Highways – US-101 and SR-85

The highway analysis for the new project residents was conducted in the same manner as described above for addressing cumulative risks at the off-site MEI receptors. However, the year 2027 (operational year) emission factors were conservatively assumed as being representative of future conditions, instead of 2026 (construction year). An analysis based on 2027 resulted in an increased ADT on US-101 of 215,250 vehicles and 70,350 vehicles on SR-85. The project set of receptors were placed throughout the project residential areas and were spaced every 23 feet (7 meters). Highway impacts were modeled at receptor heights of 15 feet (4.5 meters) representing sensitive receptors on the second floors of the condominiums where the living areas of the home are located based on project plans provided by the applicant.³³ The portions of US-101 and SR-85 included in

³² 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 *CBI 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.

³³ File: *ECP_2nd Formal Submittal_PLANS_Duplicates Removed_.pdf*

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 the residents at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include third trimester pregnancy and infants/children and were assumed to be in the new housing area for 24 hours per day for 350 days per year. The highest impacts from US-101 and SR-85 occurred at a receptor on the second floor in the northeastern corner of the project site. Cancer risks associated with the highways are greatest closest to the highways and decrease with distance from the highways. The highway health risk impacts at the project site are shown in Table 6. Details of the highway emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 3*.

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 6 shows the screening health risk impacts for the stationary sources on the project sensitive receptors.

Construction Risk Impacts from Nearby Developments

While the construction periods of the nearby developments is assumed to occur concurrently with this proposed project's construction period, as discussed above, Table 6 also includes the controlled risk impacts from their air quality technical reports or estimated controlled risk impacts. In the event that construction of those nearby developments is postponed for any reason, the potential exists for this project to be occupied during construction of the nearby developments. This is a conservative assumption but is intended to show the worst case scenario impacts to project receptors.

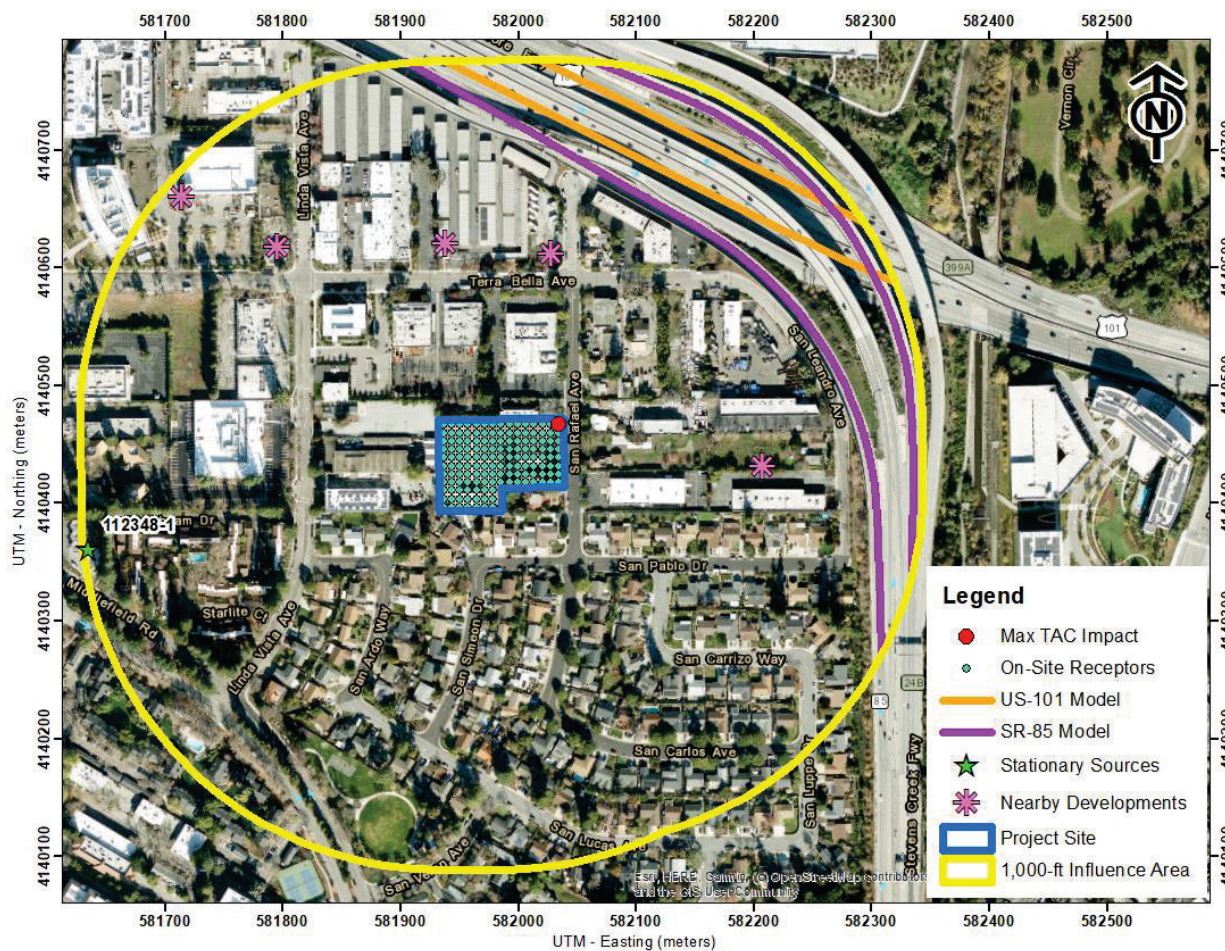
Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the existing TAC sources upon the project site are reported in Table 6. The risks from the singular TAC sources are compared against the Air District single-source threshold. The risks from all the sources are then combined and compared against the Air District cumulative-source threshold. As shown, existing sources of TAC emissions do not exceed the Air District single-source or cumulative-source thresholds for cancer risk, annual PM_{2.5} concentration, or HI.

Table 6. Impacts from Cumulative Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
U.S. 101 – ADT 215,250	2.69	0.08	<0.01
S.R. 85 – ADT 70,350	0.89	0.03	<0.01
Shoreline Shell (Facility ID #112348-1, Gas Dispensing Facility), Project Site at 950 feet.	0.66	-	0.04
1020 & 1040 Terra Bella Avenue Controlled Construction Risk Impacts	<3.52	<0.06	<0.01
1110 Terra Bella Avenue & 1012 Linda Vista Avenue Controlled Construction Risk Impacts	<5.00	<0.15	<0.50
922, 944, & 950 San Leandro Avenue Controlled Construction Risk Impacts	<3.33	<0.04	<0.01
<i>Bay Area Air District Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Total	<16.09	<0.36	<0.58
<i>Bay Area Air District Cumulative Source Threshold</i>	<i>>100</i>	<i>>0.8</i>	<i>>10.0</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

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



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 6,343 million metric tons (MMT) carbon dioxide equivalent (CO₂e).³⁴ These emissions were 17 percent lower than 2005 levels, but 1 percent higher than 2021.

³⁴ United States Environmental Protection Agency, 2024. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2022*. April 11. Web: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2022 emissions.³⁵ In 2022, GHG emissions from statewide emitting activities were 371.1 MMT CO₂e, 2.4 percent lower than 2021. Since peak levels in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit and have remained below the Limit since that time.

Recent Regulatory Actions for GHG Emissions

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

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

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

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions targets by directing the California Air Resources Board (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, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and Building Standards Commission have all developed regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

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

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO₂e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit was a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, due to the economic downturn in 2010, to 545 MMT of CO₂e. Two GHG emissions reduction measures that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO₂e. Thus, an estimated reduction of 80 MMT of CO₂e was necessary to reduce statewide emissions to meet the AB 32 target by 2020.

³⁵ CARB. 2024. *California Greenhouse Gas Emission for 2000 to 2022*. Web: <https://ww2.arb.ca.gov/ghg-inventory-data>

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 provided incentives for local governments and applicants to implement new conscientiously planned growth patterns. This included incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allowed applicants to bypass certain environmental reviews under CEQA if they built 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, was encouraged. SB 375 enhanced 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 to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled (VMT) and demonstrate the region's ability to attain its GHG reduction targets.

Senate Bills 350 and 100 - Renewable Portfolio Standards

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

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 requires 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 utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resources to all California end-use customers.

SB 743 Transportation Impacts

Senate Bill 743 required 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 transportation³⁶. 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

³⁶ Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

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 creating policies/programs that would meet this goal.

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 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*, replacing the 2008 Plan.³⁷

In December 2022, CARB adopted a Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 Plan Update:

- 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 Update lays out how the state can get to carbon neutrality by 2045 or earlier. It is also the first Scoping Plan that adds carbon neutrality as a science-based guide and standard beyond established emission reduction targets.³⁸

³⁷ 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

³⁸ <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

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 Update 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 statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan Update, CARB recommends:

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

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 11.³⁹ The CALGreen Code encourages sustainable construction standards that involve planning/design, energy 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 CEC. This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. However, the CEC does not mandate specific fuel types. 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. The 2022 Energy Code builds on California's technological innovations, encouraging inclusion of market-ready electric products in new construction, such as heat pumps for climate control and water heating. Under the 2022 standards, all new homes are required to be electric-ready. That means buildings with gas stoves have electrical panels and wiring to support a switch to electric stoves. This Energy code also strengthens ventilation standards to improve indoor air quality. This update provides crucial steps in the state's progress toward 100 percent clean carbon neutrality by midcentury.⁴⁰

³⁹ 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.>

⁴⁰ See: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.⁴¹ 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.

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations and are regularly updated on a 3-year cycle. 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 non-residential buildings. The 2022 CALGreen standards include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions for both EV readiness and the actual installation of EV chargers. 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 32 climate goals.

An update to the current CALGreen Energy Code will be effective on January 1, 2026, with the adoption of the 2025 Energy Code.⁴² The 2025 standards were adopted at the September 11, 2024 CEC business meeting and will go to the California Building Standards Commission for approval as part of California’s Building Standards Code before the end of 2024. It will apply to newly constructed buildings, additions, and alterations and focus on:

- Expanding the use of heat pumps for space conditioning and water heating in newly constructed single-family, multifamily, and select nonresidential buildings.
- Encouraging electric-ready buildings to set up owners to use cleaner electric water heating and cooking when they are ready to invest in those technologies.
- Updating photovoltaic and battery energy storage system standards for high-rise multifamily and nonresidential buildings to achieve cost effective installations in consideration of revised net billing and virtual net billing rules.
- Updating space conditioning system control standards for non-residential buildings.
- Updating ventilation requirements in multifamily buildings to improve indoor air quality.

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.

⁴¹ California Energy Commission. 2021. *Final Commission Report: California Building Decarbonization Assessment*. Publication Number CEC-400-2021-006-CMF. August

⁴² CEC 2025 California Energy Code Fact Sheet, September 2024.

https://www.energy.ca.gov/sites/default/files/2024-09/2025_California_Energy_Code_Fact_Sheet_ada.pdf

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. 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 Mountain View

GHG Reduction Program

The City of Mountain View adopted a qualified GHG Reduction Program (GGRP) in August 2012.⁴³ This program meets the requirements of a GHG Reduction Strategy under State CEQA Guidelines Section 15183.5. The program includes 5 strategies and 20 measures that will enable the City to achieve a communitywide emissions efficiency (per-service population – residents and full-time employees) of 15 to 20 percent over 2005 levels by 2020 (to 5.1 - 5.4 MT CO₂e/SP/yr) and of 30 percent over 2005 levels by 2030 (to 4.5 MT CO₂e/SP/yr). The GGRP goals are updated every three to five years using sustainability action plans (SAPs) to augment the 2030 General Plan Action Plan actions, to assess if it is achieving its goal of reducing GHG emissions, and to review the City's overall strategy for GHG emission reductions. The most current SAP is from 2019.

Climate Protection Roadmap

The 2015 Climate Protection Roadmap (CPR)⁴⁴ identifies strategies and mechanisms to reduce community-wide greenhouse gas emissions 80% by 2050. Their CAP from 2012 did not contain actions strong enough to achieve the City's adopted absolute targets (5% below 2005 baseline levels by 2012, 10% below 2005 baseline levels by 2015, 15–20% below 2005 baseline levels by 2020, 80% below 2005 baseline levels by 2050). The City recognized the incongruence of the efficiency targets used within their CAP and sought to resolve the issue by conducting a study to evaluate the feasibility of achieving the adopted targets. The City initiated the CPR for this purpose. The CPR is not a plan in and of itself, but an analysis that may be used by City officials to evaluate the potential for long-term communitywide emission reduction initiatives moving forward. Due to the high-level nature of the analysis, the CPR does not explicitly direct the implementation of any specific city actions. However, it outlines viable options for future city programs, policies, and actions that could be pursued following additional feasibility analysis.

⁴³ AECOM. 2012. City of Mountain View Greenhouse Gas Reduction Program. August. Web: <https://www.mountainview.gov/home/showpublisheddocument/814/637940976795200000>

⁴⁴ City of Mountain View, Climate Protection Roadmap. September 2015. Web: <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=19516>

2019 Mountain View Green Building and Reach Codes

On November 12, 2019, the City adopted the Mountain View Green Building Code amendments,⁴⁵ which includes a Reach Codes for new construction. Reach Codes exceed the State's minimum energy code requirements. Included in the City's Reach Codes is a requirement that new buildings be all-electric. Natural gas use in buildings is one of the largest sources of GHG emissions in Mountain View, so meeting their GHG reduction goals requires reducing this source of emissions. The City provides a worksheet to help new construction projects meet their new building code amendments and reach code.

Carbon Neutrality Resolution

In April 2020, the City Council passed a resolution for Mountain View to become a carbon neutral city by 2045.⁴⁶ This means that in addition to achieving the adopted 2045 GHG reduction target of 75% below 2005 levels, Mountain View has committed to balancing any remaining GHG emissions with carbon sequestration projects and/or carbon offsets.

Bay Area 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.⁴⁷ 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
 - 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

⁴⁵ City of Mountain View, *2019 MOUNTAIN VIEW GREEN BUILDING AND REACH CODES*, 2019. Web: https://www.mountainview.gov/depts/comdev/building/construction/2019_mountain_view_green_building_and_reach_codes.asp

⁴⁶ City of Mountain View, *Carbon Neutrality Resolution*, April 2020. Web: <file:///C:/Users/cdivine/Downloads/ATT%201%20-%20Resolution.pdf>

⁴⁷ 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](https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en)

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

All project land uses were entered into CalEEMod as described above in the construction criteria pollutant section.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of operation would be 2027 if construction begins in 2026. Emissions associated with build-out later than 2027 would be lower.

Traffic Information

The daily trip generation was calculated by the traffic consultant using ITE trip generation rates and the size of the project land uses and entered into the model.⁴⁸ The project would produce approximately 196 daily trips. The Saturday and Sunday trip 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

⁴⁸ Email Correspondence from Kishann Rai, Assistant Project Manager, David J. Powers & Associates, Inc., August 27, 2025, RE: 924-940 San Rafael Ave- I&R Proposal.

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 more stringent and latest Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. An emission factor of 58 pounds of CO₂ per megawatt of electricity produced was entered into CalEEMod, which is based on Silicon Valley Clean Energy's (SVCE) Annual Content Power Labels for 2023.⁴⁹

The Project plans do not show any natural gas infrastructure, and the applicant has confirmed the building will be all electric. Therefore, natural gas use for the project land uses was set to zero and reassigned to electricity use in CalEEMod.

Other Inputs

Default model assumptions for emissions associated with solid waste generation were used. Wastewater treatment was changed to 100-percent aerobic conditions to represent the use of City services (i.e., the project would not send wastewater to septic tanks or facultative lagoons).

Service Population Emissions

The project service population efficiency rate is based on the number of future residents. For this project, the number of future residents was estimated by multiplying the total number of units (i.e., 36 units) by the persons per household rate for the City of Mountain View found in the California Department of Finance Population and Housing Estimate report.⁵⁰ Using the 2.30-person per household 2024 rate, the number of future residents was estimated to be 83 residents. This total service population was used to calculate the per capita emissions.

Construction GHG Emissions

GHG emissions associated with construction were computed at 347 MT of CO₂e 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.

⁴⁹ Annual Power Content Labels for 2023. Web: <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program/power-content-label/annual-power-4>

⁵⁰ State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2025*. Sacramento, California. Accessed: May 6, 2025. Available at: <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/>

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. Annual GHG emissions resulting from operation of the proposed project in Table 7 are predicted to be 189 MT of CO₂e in 2027 and the service population emission are predicted to be 2.3 MT/CO₂e/year/service population.

Table 7. Annual Project GHG Emissions (CO₂e) in Metric Tons

Source Category	Proposed Project in 2027
Mobile	173
Area	<1
Energy Consumption	6
Water Usage	1
Solid Waste Generation	8
Refrigerants	<1
Total (MT CO ₂ e/year)	189
Service Population Emissions (MT CO ₂ e/year/service population)	2.3
City's GHG Efficiency Threshold	4.5

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 B is being applied to the analysis of this project since the City's GGRP is a qualified GHG reduction strategy under the State CEQA Guidelines Section 15183.5.

As shown in Table 7, the project's service population emissions are predicted to be 2.3 MT/CO₂e/year/service population, which is below the City's GHG efficiency thresholds of 4.5 MT/CO₂e/year/service population for the year 2030. Therefore, the project would not exceed the City's thresholds for GHG emissions.

Additionally, the City's GGRP includes strategies and measures that address Mountain View's top sources of GHG emissions, including energy, waste, water, transportation, and carbon sequestration. If the project can demonstrate consistency with the City's qualified GGRP strategies and measures, the project would comply with Threshold B. Currently there is not a checklist for development projects; however, the following, but not limited to, strategies and measures in the GGRP would be relevant to this proposed project:

Measure E-1.6 Action A - Ensure compliance with City's adopted energy efficiency requirements.

Measure CS-1.1 Action A - Expand existing tree planting efforts.

The project is anticipated to be consistent with the City's GGRP as it will be required to implement the above measures. Consistency with the GGRP should be confirmed by the City's Planning Commission prior to project approval.

Threshold A is also being applied to the analysis. Threshold A requires the project to:

1. Avoid construction of new natural gas connections for the residential building,
 - Conforms – According to project applicant, the project will be all electric with no 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 would meet the Tier 2 compliance standards as each residential unit garage would be equipped with one level 2 (208/240 volt) electric vehicle charging station (EVCS) and rated at 40 amperes minimum and include one electric vehicle (EV) ready space conduit system.
4. Reduce VMT per capita by 15 percent over baseline conditions.
 - Conforms – the project meets the City's VMT map-based screening criteria and does not require a VMT analysis.⁵¹

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 Mountain View has adopted a qualified GHG reduction strategy that meets the State CEQA Guidelines Section 15183.5 and would meet the Air District's CEQA significance threshold. The proposed Project would be required to meet City building code requirements. Therefore, it would not conflict with the City's GGRP or any local plans, policies, or regulations applicable to GHG emissions. The proposed building would be constructed in conformance with at a minimum the latest CALGreen and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions reductions.

⁵¹ Email Correspondence from Kishann Rai, Assistant Project Manager, David J. Powers & Associates, Inc., August 27, 2025, RE: 924-940 San Rafael Ave- I&R Proposal.

Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction and operational criteria air pollutant emissions. Also included are any modeling assumptions.

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

Attachment 3 includes the cumulative screening, modeling, and health risk calculations from TAC sources affecting the MEIs and proposed sensitive receptors.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons					MT	
Construction Equipment							
2026+2027	0.74	1.51	0.05	0.05	0.02	347.32	
	Total Construction Emissions						
Tons	0.74	1.51	0.05	0.05		347.32	
Pounds/Workdays	Average Daily Emissions					Workdays	
2026+2027	4.92	10.01	0.35	0.32			302
Threshold - lbs/day	54.0	54.0	82.0	54.0			
	Total Construction Emissions						
Pounds	1486.27	3023.64	106.33	97.90		0.00	
Average	4.92	10.01	0.35	0.32		0.00	302.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Operational Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5			
Year	Tons						
Total	0.48	0.08	0.18	0.05			
	Net Annual Operational Emissions						
Tons/year	0.48	0.08	0.18	0.05			
Threshold - Tons/year	10.0	10.0	15.0	10.0			
	Average Daily Emissions						
Pounds Per Day	2.65	0.43	1.01	0.26			
Threshold - lbs/day	54.0	54.0	82.0	54.0			
Category	CO2e						
	Project	Existing	Project 2030	Existing			
Mobile	172.88						
Area	0.45						
Energy	5.67						
Water	1.07						
Waste	8.34						
Refrig.	0.10						
TOTAL	188.50	0.00	0.00	0.00			
Net GHG Emissions		188.50		0.00			
Service Population	83						
Per Capita Emissions		2.3		0.00			
36 units							
CA DOF 2024 = 2.30 pphh							

Number of Days Per Year

2026+2027	1/1/2026	2/25/2027	421	302
			421	302 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2026	2/1/2026	5	22
Site Preparation	2/2/2026	2/4/2026	5	3
Grading	2/5/2026	2/12/2026	5	6
Building Construction	2/23/2026	1/26/2027	5	242
Paving	2/11/2027	2/25/2027	5	11
Architectural Coating	1/27/2027	2/10/2027	5	11
Trenching	2/13/2026	2/22/2026	5	6

Air Quality/Noise Construction Information Data Request

Project Name: 924-940 San Rafael Avenue, Mountain View DEFAULTS

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	36 Dwelling Units	1.8 total project acres disturbed
	80,231 s.f. residential	
	s.f. retail	
	s.f. office/commercial	
	s.f. other, specify:	
	s.f. parking garage	spaces
	s.f. parking lot	9 spaces
Construction Days (i.e., M-F)	to	
Construction Hours	am to	pm

Pile Driving? Y/N?

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

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	Start Date:	1/1/2026	Total phase:	22			Overall Import/Export Volumes
	End Date:	2/1/2026						
1	Concrete/Industrial Saws	33	0.73	8	22	8	4240	Demolition Volume
	Excavators	36	0.38			0	0	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	367	0.4	8	22	8	25837	(or total tons to be hauled)
3	Tractors/Loaders/Backhoes	84	0.37	8	22	8	16410	4,100 square feet or
	Other Equipment?							2 Hauling volume (tons)
								Any pavement demolished and hauled? Est. 80 Total Round-Trips
	Site Preparation	Start Date:	2/2/2026	Total phase:	3			
	End Date:	2/4/2026						
1	Graders	148	0.41	8	3	8	1456	
	Rubber Tired Dozers	367	0.4			0	0	
1	Tractors/Loaders/Backhoes	84	0.37	7	3	7	653	
1	Other Equipment? Scrapers	423	0.48	8	3	8	4873	
	Grading / Excavation	Start Date:	2/5/2026	Total phase:	6			Soil Hauling Volume
	End Date:	2/12/2026						Export volume = 0 cubic yards?
	Excavators	36	0.38			0	0	Import volume = 1900 cubic yards?
1	Graders	148	0.41	8	6	8	2913	
1	Rubber Tired Dozers	367	0.4	8	6	8	7046	
	Concrete/Industrial Saws	33	0.73			0	0	
2	Tractors/Loaders/Backhoes	84	0.37	7	6	7	2611	
	Other Equipment?							
	Trenching/Foundation	Start Date:	2/13/2026	Total phase:	6			
	End Date:	2/22/2026						
1	Tractor/Loader/Backhoe	84	0.37	8	6	8	1492	
1	Excavators	36	0.38	8	6	8	657	
	Other Equipment?							
	Building - Exterior	Start Date:	2/23/2026	Total phase:	242			Cement Trucks? Est. 133 Total Round-Trips
	End Date:	1/26/2027						
1	Cranes	367	0.29	8	242	8	206048	Electric? (Y/N) Otherwise assumed diesel
2	Forklifts	82	0.2	7	242	7	55563	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel
1	Generator Sets	14	0.74	8	242	8	20057	Or temporary line power? (Y/N)
1	Tractors/Loaders/Backhoes	84	0.37	6	242	6	45128	
3	Welders	46	0.45	8	242	8	120226	
	Other Equipment?							
	Building - Interior/Architectural Coating	Start Date:	1/27/2027	Total phase:	11			
	End Date:	2/10/2027						
1	Air Compressors	37	0.48	6	11	6	1172	
	Aerial Lift	46	0.31			0	0	
	Other Equipment?							
	Paving	Start Date:	2/11/2027	Total phase:	11			
	Start Date:	2/25/2027						
1	Cement and Mortar Mixers	10	0.56	8	11	8	493	Asphalt? ___ cubic yards or Est. 26 round trips?
1	Pavers	81	0.42	8	11	8	2994	
1	Paving Equipment	89	0.36	8	11	8	2820	
2	Rollers	36	0.38	8	11	8	2408	
1	Tractors/Loaders/Backhoes	84	0.37	8	11	8	2735	
	Other Equipment?							
	Additional Phases	Start Date:		Total phase:				
	Start Date:							
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

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

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Traffic Consultant Trip Gen					CalEEMod Default		
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
Condo/Townhouse High Ri: DU	36	196	196	5.44	5.44	4.91	4.09
					Rev	4.91	4.09

Hi Casey,

The City did not want a traffic study for this project. They said that an MTA and VMT analysis is not required because VMT is screened out based on map-based screening. The project is estimated to generate 196 daily trips that would use the surrounding roadway system.

The daily trips were calculating using the Institute of Transportation Engineers Code 221 trip generation rate of 5.44 for "Condo/Townhouse High Rise." 36 rowhouses * 5.44 daily trips per rowhouse = 196 daily trips (Source: California Air Pollution Control Officers Association. *CalEEMod Emissions Estimator Model, Appendix G Default Data Tables*. April 2022. <https://www.caleemod.com/user-guide>).

Let us know if there is anything else you need. Thank you!

Best,
Kish

Kishann Rai | Assistant Project Manager
she/her/hers
David I. Browne & Associates, Inc.

25-080 924-940 San Rafael Ave, Mountain View T4 2027 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-080 924-940 San Rafael Ave, Mountain View T4 2027
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	28.2
Location	924 San Rafael Ave, Mountain View, CA 94043, USA
County	Santa Clara
City	Mountain View
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1733
EDFZ	1
Electric Utility	Silicon Valley Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.30

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
Condo/Townhouse High Rise	36.0	Dwelling Unit	1.80	80,231	27,378	—	108	—

Parking Lot	9.00	Space	0.00	0.00	0.00	—	—	—
-------------	------	-------	------	------	------	---	---	---

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

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.	1.27	10.4	0.36	0.26	0.62	0.33	0.06	0.40	2,618
Mit.	0.42	4.80	0.07	0.26	0.33	0.07	0.06	0.13	2,618
% Reduced	67%	54%	80%	—	46%	79%	—	66%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	103	16.5	0.61	7.92	8.53	0.57	3.65	4.22	5,467
Mit.	103	4.84	0.08	3.59	3.67	0.08	1.56	1.64	5,467
% Reduced	< 0.5%	71%	87%	55%	57%	86%	57%	61%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.18	7.56	0.27	0.33	0.60	0.25	0.11	0.35	1,909
Mit.	3.12	3.24	0.05	0.25	0.30	0.05	0.07	0.12	1,909
% Reduced	2%	57%	81%	24%	50%	80%	33%	66%	—
Annual (Max)	—	—	—	—	—	—	—	—	—

Unmit.	0.58	1.38	0.05	0.06	0.11	0.04	0.02	0.06	316
Mit.	0.57	0.59	0.01	0.05	0.05	0.01	0.01	0.02	316
% Reduced	2%	57%	81%	24%	50%	80%	33%	66%	—

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)	—	—	—	—	—	—	—	—	—
2026	1.27	10.4	0.36	0.26	0.62	0.33	0.06	0.40	2,618
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2026	1.51	16.5	0.61	7.92	8.53	0.57	3.65	4.22	5,467
2027	103	9.98	0.32	0.26	0.59	0.30	0.06	0.36	2,593
Average Daily	—	—	—	—	—	—	—	—	—
2026	0.89	7.56	0.27	0.33	0.60	0.25	0.11	0.35	1,909
2027	3.18	0.72	0.02	0.02	0.04	0.02	0.01	0.03	189
Annual	—	—	—	—	—	—	—	—	—
2026	0.16	1.38	0.05	0.06	0.11	0.04	0.02	0.06	316
2027	0.58	0.13	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	31.3

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)	—	—	—	—	—	—	—	—	—
2026	0.42	4.80	0.07	0.26	0.33	0.07	0.06	0.13	2,618
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—

2026	0.41	4.84	0.08	3.59	3.67	0.08	1.56	1.64	5,467
2027	103	4.81	0.07	0.26	0.33	0.07	0.06	0.13	2,593
Average Daily	—	—	—	—	—	—	—	—	—
2026	0.28	3.24	0.05	0.25	0.30	0.05	0.07	0.12	1,909
2027	3.12	0.34	0.01	0.02	0.03	< 0.005	0.01	0.01	189
Annual	—	—	—	—	—	—	—	—	—
2026	0.05	0.59	0.01	0.05	0.05	0.01	0.01	0.02	316
2027	0.57	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	31.3

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.80	0.42	0.01	1.07	1.08	0.01	0.27	0.28	1,255
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.59	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,180
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.65	0.43	0.01	1.00	1.01	0.01	0.25	0.26	1,139
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.48	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	189

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	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158
Area	2.21	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	34.3
Water	—	—	—	—	—	—	—	—	6.47
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.80	0.42	0.01	1.07	1.08	0.01	0.27	0.28	1,255
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088
Area	2.03	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	34.3
Water	—	—	—	—	—	—	—	—	6.47
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.59	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,180
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.42	0.01	1.00	1.01	0.01	0.25	0.26	1,044
Area	2.11	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.70
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	34.3
Water	—	—	—	—	—	—	—	—	6.47
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.65	0.43	0.01	1.00	1.01	0.01	0.25	0.26	1,139
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173
Area	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.45
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	5.67
Water	—	—	—	—	—	—	—	—	1.07

Waste	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10
Total	0.48	0.08	< 0.005	0.18	0.18	< 0.005	0.05	< 0.005	0.18	0.05	< 0.005	0.05	0.05	0.05	0.05	0.05	0.05	189

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158
Area	2.21	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	34.3
Water	—	—	—	—	—	—	—	—	6.47
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.80	0.42	0.01	1.07	1.08	0.01	0.27	0.28	1,255
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088
Area	2.03	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	34.3
Water	—	—	—	—	—	—	—	—	6.47
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.59	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,180
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.42	0.01	1.00	1.01	0.01	0.25	0.26	1,044
Area	2.11	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.70
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	34.3

Water	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	50.4
Refrig.	—	—	—	—	—	—	—	—	0.57
Total	2.65	0.43	0.01	1.00	1.01	0.01	0.25	0.26	1,139
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173
Area	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.45
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	5.67
Water	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	8.34
Refrig.	—	—	—	—	—	—	—	—	0.10
Total	0.48	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	189

3. Construction Emissions Details

3.1. Demolition (2026) - 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	1.39	12.9	0.51	—	0.51	0.47	—	0.47	2,503
Demolition	—	—	—	0.19	0.19	—	0.03	0.03	—
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	0.08	0.78	0.03	—	0.03	0.03	—	0.03	—	0.03	151
Demolition	—	—	—	0.01	0.01	—	< 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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	0.01	—	0.01	0.01	—	0.01	—	0.01	25.0
Demolition	—	—	—	< 0.005	< 0.005	—	< 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	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	0.02	0.02	98.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.01	0.18	0.18	0.01	0.05	0.05	0.06	0.06	697
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	6.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	42.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	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	< 0.005	< 0.005	6.96

3.2. Demolition (2026) - 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
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.27	0.05	—	0.05	0.05	0.05	0.05	—	0.05	0.05	2,503
Demolition	—	—	—	0.19	0.19	0.19	0.19	0.03	0.03	0.03	0.03	—
Onsite truck	0.00	0.00	0.00	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	0.14	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	151
Demolition	—	—	—	0.01	0.01	0.01	0.01	< 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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	25.0
Demolition	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	< 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	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.10	0.10	0.10	0.10	0.02	0.02	0.02	0.02	98.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.01	0.18	0.18	0.18	0.18	0.05	0.05	0.06	0.06	697
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	6.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	42.0

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.00	—
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	6.96	—

3.3. Site Preparation (2026) - 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	1.13	9.84	0.42	—	0.42	0.39	—	0.39	2,725
Dust From Material Movement	—	—	—	1.59	1.59	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.4
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	3.71
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	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	0.06	0.00	0.01	0.01	59.2	0.00
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	< 0.005	< 0.005	0.49	0.00
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	< 0.005	< 0.005	0.08	0.00
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.4. Site Preparation (2026) - 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	0.26	1.33	0.05	—	0.05	0.05	—	0.05	2,725			
Dust From Material Movement	—	—	—	0.62	0.62	—	0.07	0.07	—			

Onsite truck	0.00	0.00	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	—	< 0.005	22.4	
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	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	—	< 0.005	3.71	
Dust From Material Movement	—	—	—	< 0.005	< 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	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.06	0.01	0.01	59.2	
Vendor	0.00	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	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.49	
Vendor	0.00	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	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 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	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

3.5. Grading (2026) - 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	1.42	12.9	0.58	—	0.58	0.53	—	0.53	2,463
Dust From Material Movement	—	—	—	7.10	7.10	—	3.43	3.43	—
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	0.21	0.01	—	0.01	0.01	—	0.01	40.5
Dust From Material Movement	—	—	—	0.12	0.12	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
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	0.08	0.08	0.00	0.02	0.02	0.02	79.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	3.61	0.03	0.74	0.77	0.03	0.20	0.24	0.24	2,925
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.31
Vendor	0.00	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	< 0.005	48.1
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.22
Vendor	0.00	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	< 0.005	7.96

3.6. Grading (2026) - 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	2,463
Dust From Material Movement	—	—	—	2.77	2.77	—	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	40.5

Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	0.02	—
Onsite truck	0.00	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	< 0.005	6.70
Dust From Material Movement	—	—	—	0.01	0.01	—	< 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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.08	0.08	0.00	0.02	0.02	0.02	79.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	3.61	0.03	0.74	0.77	0.03	0.20	0.24	0.24	2,925
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.31
Vendor	0.00	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	< 0.005	48.1
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.22
Vendor	0.00	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	< 0.005	7.96

3.7. Building Construction (2026) - 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
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	0.36	—	—	0.36	—	—	0.33	—	—	0.33	—	0.33	—	0.33	—	2,208	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	0.36	—	—	0.36	—	—	0.33	—	—	0.33	—	0.33	—	0.33	—	2,208	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.17	0.22	—	—	0.22	—	—	0.20	—	—	0.20	—	0.20	—	0.20	—	1,348	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.13	0.04	—	—	0.04	—	—	0.04	—	—	0.04	—	0.04	—	0.04	—	223	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.00	0.21	0.21	0.21	—	—	0.00	0.21	0.21	0.00	0.05	0.05	0.05	0.05	—	221	—
Vendor	< 0.005	0.13	< 0.005	0.03	0.03	0.03	—	—	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.01	0.01	—	107	—
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	0.02	—	—	< 0.005	0.02	0.02	< 0.005	0.01	0.01	0.01	0.01	—	81.2	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.00	0.21	0.21	0.21	—	—	0.00	0.21	0.21	0.00	0.05	0.05	0.05	0.05	—	205	—
Vendor	< 0.005	0.13	< 0.005	0.03	0.03	0.03	—	—	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.01	0.01	—	107	—
Hauling	< 0.005	0.10	< 0.005	0.02	0.02	0.02	—	—	< 0.005	0.02	0.02	< 0.005	0.01	0.01	0.01	0.01	—	81.1	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.04	0.04	0.00	0.13	0.13	0.00	0.03	0.03	126
Vendor	< 0.005	0.08	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	65.2
Hauling	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.5
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	20.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.20

3.8. Building Construction (2026) - 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	0.34	4.53	0.07	—	0.07	0.07	—	0.07	2,208
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	0.34	4.53	0.07	—	0.07	0.07	—	0.07	2,208
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	0.21	2.77	0.04	—	0.04	0.04	—	0.04	1,348
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	0.50	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

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.00	0.21	0.21	0.05	0.21	0.05	0.00	0.05	0.05	221	—
Vendor	< 0.005	0.13	< 0.005	0.03	0.03	< 0.005	0.03	0.01	< 0.005	0.01	0.01	107	—
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	< 0.005	0.02	0.01	< 0.005	0.01	0.01	81.2	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.00	0.21	0.21	0.05	0.21	0.05	0.00	0.05	0.05	205	—
Vendor	< 0.005	0.13	< 0.005	0.03	0.03	< 0.005	0.03	0.01	< 0.005	0.01	0.01	107	—
Hauling	< 0.005	0.10	< 0.005	0.02	0.02	< 0.005	0.02	0.01	< 0.005	0.01	0.01	81.1	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.13	0.13	0.03	0.13	0.03	0.00	0.03	0.03	126	—
Vendor	< 0.005	0.08	< 0.005	0.02	0.02	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	65.2	—
Hauling	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	49.5	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.01	0.02	0.01	0.00	0.01	0.01	20.9	—
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8	—
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.20	—

3.9. 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)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	0.32	—	0.32	0.30	—	0.30	2,208

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.49	0.02	—	0.02	0.02	0.02	—	0.02	0.02	—	112
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	< 0.005	—	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	18.6
Onsite truck	0.00	0.00	0.00	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	0.07	0.06	0.00	0.21	0.01	0.21	0.00	0.05	0.05	0.05	201	201
Vendor	< 0.005	0.13	< 0.005	0.03	< 0.005	0.03	< 0.005	0.01	0.01	0.01	105	105
Hauling	< 0.005	0.10	< 0.005	0.02	< 0.005	0.02	< 0.005	0.01	0.01	0.01	79.2	79.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	10.3	10.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.33	5.33
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.03	4.03
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.71	1.71
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.88	0.88
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.67	0.67

3.10. 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
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	4.53	0.07	—	—	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	2,208	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.23	< 0.005	—	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	112	112
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6	18.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.00	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	201	201
Vendor	< 0.005	0.13	< 0.005	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	105	105
Hauling	< 0.005	0.10	< 0.005	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	79.2	79.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	10.3	10.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.33	5.33
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.03	4.03
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.71	1.71
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.88	0.88

3.11. Paving (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	0.65	5.74	0.23	—	0.23	0.21	—	0.21	1,248
Paving	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	0.02	0.17	0.01	—	0.01	0.01	—	0.01	37.6
Paving	< 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	6.23
Paving	< 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	0.01	0.42	< 0.005	0.09	0.09	< 0.005	0.02	0.03	341
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.55
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	10.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.59
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	1.70

3.12. Paving (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	0.18	2.19	0.04	—	0.04	0.04	—	0.04	1,248
Paving	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	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	37.6
Paving	< 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	6.23

Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.12	0.12	0.00	0.00	0.03	0.03	0.03	0.03	116	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.42	< 0.005	0.09	0.09	< 0.005	< 0.005	0.02	0.03	0.03	0.03	341	341
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.55	3.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3	10.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.59	0.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.70	1.70

3.13. Architectural Coating (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	0.11	0.83	0.02	—	0.02	0.02	—	0.02	134

Architectural Coatings	103	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	< 0.005	< 0.005	4.04
Architectural Coatings	3.10	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	< 0.005	< 0.005	0.67
Architectural Coatings	0.56	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	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	0.01	40.2
Vendor	0.00	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.23
Vendor	0.00	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	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	0.00

3.14. Architectural Coating (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	0.02	0.65	< 0.005	—	< 0.005	< 0.005	—	< 0.005	134
Architectural Coatings	103	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.04
Architectural Coatings	3.10	—	—	—	—	—	—	—	—
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	0.67
Architectural Coatings	0.56	—	—	—	—	—	—	—	—
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	40.2

Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.23
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.15. Trenching (2026) - 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	1.86	0.06	—	0.06	0.05	—	0.05	433
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	7.13
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	1.18
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	0.04	0.04	0.00	0.01	0.01	39.5	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.66	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Trenching (2026) - 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	0.81	0.01	—	0.01	0.01	—	0.01	433
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	< 0.005	7.13
Onsite truck	0.00	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	< 0.005	1.18
Onsite truck	0.00	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	0.01	39.5
Vendor	0.00	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.66
Vendor	0.00	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088
Annual	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173

4.1.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.59	0.40	0.01	1.07	1.08	0.01	0.27	0.28	1,158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088			
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total	0.57	0.47	0.01	1.07	1.08	0.01	0.27	0.28	1,088			
Annual	—	—	—	—	—	—	—	—	—			
Condo/Townhouse High Rise	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173			
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total	0.10	0.08	< 0.005	0.18	0.18	< 0.005	0.05	0.05	173			

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)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	34.3
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	34.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	34.3
Parking Lot	—	—	—	—	—	—	—	—	0.00

[illegible]

4.2.2. Electricity Emissions By Land Use - Mitigated

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

[illegible]

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)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	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
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	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
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	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
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

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

4.3. 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	1.72	—	—	—	—	—	—	—	—
Architectural Coatings	0.31	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48
Total	2.21	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	—	0.00	—	—	0.00	—	0.00	—	0.00
Consumer Products	1.72	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.31	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.03	0.00	0.00	—	—	0.00	—	—	0.00	—	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	—	0.00	—	—	0.00	—	0.00	—	0.00
Consumer Products	0.31	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	—	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.45
Total	0.39	< 0.005	< 0.005	—	—	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.45

4.3.2. Mitigated

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

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	1.72	—	—	—	—	—	—	—	—
Architectural Coatings	0.31	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48
Total	2.21	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.48

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	—	0.00
Consumer Products	1.72	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.31	—	—	—	—	—	—	—	—	—	—	—
Total	2.03	0.00	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	—	0.00
Consumer Products	0.31	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	< 0.005	—	0.45
Total	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	< 0.005	—	0.45

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)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	6.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	6.47
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	1.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.07

4.4.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	6.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	6.47
Annual	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	1.07
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	1.07

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	50.4
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	50.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	50.4
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	50.4
Annual	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	8.34
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	8.34

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)	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	0.57

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	2/1/2026	5.00	22.0	—
Site Preparation	Site Preparation	2/2/2026	2/4/2026	5.00	3.00	—
Grading	Grading	2/5/2026	2/12/2026	5.00	6.00	—
Building Construction	Building Construction	2/23/2026	1/26/2027	5.00	242	—
Paving	Paving	2/11/2027	2/25/2027	5.00	11.0	—
Architectural Coating	Architectural Coating	1/27/2027	2/10/2027	5.00	11.0	—
Trenching	Trenching	2/13/2026	2/22/2026	5.00	6.00	—

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	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
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
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	8.00	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	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Tier 4 Final	1.00	8.00	423	0.48
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
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37

Trenching	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
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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	9.45	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	39.7	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.9	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	3.85	8.40	HHDT,MHDT
Building Construction	Hauling	1.10	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2

Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	4.73	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.18	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	9.45	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	39.7	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.9	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	3.85	8.40	HHDT,MHDT
Building Construction	Hauling	1.10	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	4.73	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.18	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	162,468	54,156	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	4,100	—
Site Preparation	—	—	4.50	0.00	—
Grading	1,900	0.00	6.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.08

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse High Rise	—	0%
Parking Lot	0.08	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	2.34	0.00	0.00
2027	0.00	2.34	0.00	0.00

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
Condo/Townhouse High Rise	196	177	147	67,953	1,519	1,371	1,142	527,000
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Condo/Townhouse High Rise	196	177	147	67,953	1,519	1,371	1,142	527,000
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse High 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
61 / 73	

Pellet Wood Stoves	0
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5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse High 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)
162467.775	54,156	0.00	0.00	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
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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)
Condo/Townhouse High Rise	215,700	58.0	0.0000	0.0000	0.00
Parking Lot	0.00	58.0	0.0000	0.0000	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse High Rise	215,700	58.0	0.0000	0.0000	0.00
Parking Lot	0.00	58.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse High Rise	1,305,590	357,723
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse High Rise	1,305,590	357,723
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse High Rise	26.7	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse High Rise	26.7	—
Parking Lot	0.00	—

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

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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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
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	12.7	annual days of extreme heat
Extreme Precipitation	4.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.55	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	14.9
AQ-PM	16.9
AQ-DPM	93.9
Drinking Water	49.5
Lead Risk Housing	14.5
Pesticides	0.00
Toxic Releases	31.4
68 / 73	

Traffic	81.0
Effect Indicators	—
CleanUp Sites	97.8
Groundwater	96.8
Haz Waste Facilities/Generators	73.6
Impaired Water Bodies	51.2
Solid Waste	0.00
Sensitive Population	—
Asthma	8.19
Cardio-vascular	17.3
Low Birth Weights	25.9
Socioeconomic Factor Indicators	—
Education	8.42
Housing	34.2
Linguistic	35.3
Poverty	21.3
Unemployment	32.3

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	92.24945464
Employed	82.72808931
Median HI	86.37238547
Education	—
Bachelor's or higher	95.11099705
High school enrollment	100

Preschool enrollment	19.31220326
Transportation	—
Auto Access	63.41588605
Active commuting	88.1688695
Social	—
2-parent households	71.2947517
Voting	93.45566534
Neighborhood	—
Alcohol availability	24.00872578
Park access	37.5465161
Retail density	85.96176055
Supermarket access	52.49582959
Tree canopy	87.45027589
Housing	—
Homeownership	37.32837162
Housing habitability	50.66084948
Low-inc homeowner severe housing cost burden	48.97985371
Low-inc renter severe housing cost burden	38.43192609
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	84.28076479
Arthritis	91.0
Asthma ER Admissions	91.0
High Blood Pressure	87.1
Cancer (excluding skin)	47.4
Asthma	91.1
Coronary Heart Disease	91.8
Chronic Obstructive Pulmonary Disease	95.5

Diagnosed Diabetes	92.6
Life Expectancy at Birth	77.3
Cognitively Disabled	78.9
Physically Disabled	92.6
Heart Attack ER Admissions	69.7
Mental Health Not Good	94.2
Chronic Kidney Disease	90.3
Obesity	91.0
Pedestrian Injuries	57.3
Physical Health Not Good	96.7
Stroke	93.8
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	93.7
No Leisure Time for Physical Activity	94.4
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	94.5
Elderly	48.0
English Speaking	64.4
Foreign-born	74.7
Outdoor Workers	55.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	44.4
Traffic Density	76.1
Traffic Access	63.1
Other Indices	—

Hardship	8.3
Other Decision Support	—
2016 Voting	90.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	20.0
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

- a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
- b: The maximum Healthy 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	Mountain View default clean energy provider is Silicon Valley Clean Energy. 2023 power content label = 58 lb/MWh.
Construction: Construction Phases	Defaults - added trenching. Ratioed to meet provided construction schedule length of 14 months.
Construction: Off-Road Equipment	Defaults - added trenching.

Land Use	Total lot acreage, number of units, square footage, number of guest parking spaces, and landscape area provided by plans.
Construction: Trips and VMT	Demolition = Est. 80 demo'ed pavement hauling truck round trips (7.27 trips/day) added to CalEEMod calculated trips for building demolition (2.18 trips/day) totaling 9.45 trips/day , Building Const = Est. 133 concrete truck round trips (1.10 trips/day), Paving = Est. 26 asphalt truck round trips (4.73 trips/day).
Operations: Hearths	No hearths.
Operations: Water and Waste Water	Wastewater treatment 100% aerobicic - no septic tanks or lagoons.
Construction: On-Road Fugitive Dust	Air District recommended BMPs = 15 mph. Required by Mountain View Housing Element Update EIR.
Construction: Paving	100% paved.
Operations: Vehicle Data	Provided trip gen.
Operations: Energy Use	According to project applicant (shown in PD), the project will be all-electric. Convert natural gas to electricity.

25-080 924-940 San Rafael Ave, Mountain View T4 HRA Detailed Report

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5.3.2. Mitigated

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-080 924-940 San Rafael Ave, Mountain View T4 HRA
Construction Start Date	1/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	28.2
Location	924 San Rafael Ave, Mountain View, CA 94043, USA
County	Santa Clara
City	Mountain View
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1733
EDFZ	1
Electric Utility	Silicon Valley Clean Energy
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
Condo/Townhouse High Rise	36.0	Dwelling Unit	1.80	80,231	27,378	—	108	—
Parking Lot	9.00	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

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.	1.25	10.2	0.36	0.01	0.37	0.33	< 0.005	0.33	2,237
Mit.	0.41	4.61	0.07	0.01	0.08	0.07	< 0.005	0.07	2,237
% Reduced	67%	55%	80%	—	78%	79%	—	79%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	103	13.5	0.58	7.12	7.70	0.53	3.43	3.97	2,729
Mit.	103	4.61	0.07	2.79	2.84	0.07	1.34	1.39	2,729
% Reduced	< 0.5%	66%	88%	61%	63%	87%	61%	65%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.18	7.34	0.26	0.15	0.41	0.24	0.06	0.30	1,591
Mit.	3.12	3.02	0.05	0.07	0.12	0.05	0.03	0.07	1,591
% Reduced	2%	59%	82%	53%	72%	81%	57%	76%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.58	1.34	0.05	0.03	0.08	0.04	0.01	0.06	263

Mit.	0.57	0.55	0.01	0.01	0.02	0.01	< 0.005	0.01	263
% Reduced	2%	59%	82%	53%	72%	81%	57%	76%	—

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)	—	—	—	—	—	—	—	—	—
2026	1.25	10.2	0.36	0.01	0.37	0.33	< 0.005	0.33	2,237
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2026	1.47	13.5	0.58	7.12	7.70	0.53	3.43	3.97	2,729
2027	103	9.78	0.32	0.01	0.33	0.30	< 0.005	0.30	2,236
Average Daily	—	—	—	—	—	—	—	—	—
2026	0.88	7.34	0.26	0.15	0.41	0.24	0.06	0.30	1,591
2027	3.18	0.70	0.02	< 0.005	0.02	0.02	< 0.005	0.02	156
Annual	—	—	—	—	—	—	—	—	—
2026	0.16	1.34	0.05	0.03	0.08	0.04	0.01	0.06	263
2027	0.58	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	25.9

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)	—	—	—	—	—	—	—	—	—
2026	0.41	4.61	0.07	0.01	0.08	0.07	< 0.005	0.07	2,237
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2026	0.41	4.61	0.07	2.79	2.84	0.07	1.34	1.39	2,729

2027	103	4.61	0.07	0.01	0.08	0.07	< 0.005	0.07	2,236
Average Daily	—	—	—	—	—	—	—	—	—
2026	0.27	3.02	0.05	0.07	0.12	0.05	0.03	0.07	1,591
2027	3.12	0.32	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	156
Annual	—	—	—	—	—	—	—	—	—
2026	0.05	0.55	0.01	0.01	0.02	0.01	< 0.005	0.01	263
2027	0.57	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	25.9

3. Construction Emissions Details

3.1. Demolition (2026) - 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	1.39	12.9	0.51	—	0.51	0.47	—	0.47	2,503
Demolition	—	—	—	0.19	0.19	—	0.03	0.03	—
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	0.08	0.78	0.03	—	0.03	0.03	—	0.03	151
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	0.02	0.14	0.01	—	0.01	0.01	—	0.01	25.0

[illegible]

3.2. Demolition (2026) - 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	2,503
Demolition	—	—	—	0.19	0.19	—	0.03	0.03	—

Onsite truck	0.00	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	0.14	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	151
Demolition	—	—	—	0.01	0.01	—	< 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	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	25.0
Demolition	—	—	—	< 0.005	< 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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	6.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.16	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	33.6
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.40
Vendor	0.00	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	< 0.005	2.02
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.07
Vendor	0.00	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	< 0.005	0.33

3.3. Site Preparation (2026) - 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	1.13	9.84	0.42	—	0.42	0.39	—	0.39	2,725
Dust From Material Movement	—	—	—	1.59	1.59	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.4
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	3.71
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	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.00

Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00

3.4. Site Preparation (2026) - 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	0.26	1.33	0.05	—	0.05	0.05	—	0.05	2,725
Dust From Material Movement	—	—	—	0.62	0.62	—	0.07	0.07	—
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	22.4
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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.71
Dust From Material Movement	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	< 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	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.00
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00

3.5. Grading (2026) - 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	1.42	12.9	0.58	—	0.58	—	0.53	—	—	0.53	2,463	—
Dust From Material Movement	—	—	—	7.10	7.10	—	—	3.43	—	3.43	—	—
Onsite truck	0.00	0.00	0.00	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	0.21	0.01	—	0.01	—	0.01	—	—	0.01	40.5	—
Dust From Material Movement	—	—	—	0.12	0.12	—	—	0.06	—	0.06	—	—
Onsite truck	0.00	0.00	0.00	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	—	< 0.005	< 0.005	6.70	—
Dust From Material Movement	—	—	—	0.02	0.02	—	—	0.01	—	0.01	—	—
Onsite truck	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	5.33	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.66	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	0.01	0.01	141	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 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	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.31
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 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	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38

3.6. Grading (2026) - 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	2,463
Dust From Material Movement	—	—	—	2.77	2.77	—	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	40.5
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.70
Dust From Material Movement	—	—	—	—	0.01	0.01	0.01	—	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.66	< 0.005	< 0.005	0.02	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	141
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.31
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38

3.7. Building Construction (2026) - 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	1.18	10.1	0.36	—	0.36	0.33	—	0.33	2,208

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	0.36	—	0.36	0.33	—	0.33	—	0.33	2,208	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.72	6.17	0.22	—	0.22	0.20	—	0.20	—	0.20	1,348	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.13	1.13	0.04	—	0.04	0.04	—	0.04	—	0.04	223	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.07	0.02	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	14.2	
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3	
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.88	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.07	0.02	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	13.8	
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.4	
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.91	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	8.35	
Vendor	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.32	
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.38	
Annual	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.38	

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.01	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.8
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.4
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.91
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.35
Vendor	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.32
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.38
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.05
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39

3.9. 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)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	0.32	—	0.32	0.30	—	0.30	2,208
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	0.06	0.49	0.02	—	0.02	0.02	—	0.02	112
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	0.09	< 0.005	—	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	18.6
Onsite truck	0.00	0.00	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	0.06	0.02	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	13.4
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.2
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.84
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.68
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.52
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.09
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03

3.10. 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)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	4.53	0.07	—	0.07	0.07	—	0.07	2,208

Onsite truck	0.00	0.00	0.00	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	0.23	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	112
Onsite truck	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Onsite truck	0.00	0.00	0.00	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	0.06	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.00	< 0.005	< 0.005	13.4
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.2
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.84
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.68
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.52
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.09
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03

3.11. Paving (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
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Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.04	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08

3.12. Paving (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	0.18	2.19	0.04	—	0.04	0.04	—	0.04	1,248
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	37.6
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	6.23
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	0.04	0.01	0.00	0.01	0.01	0.00	0.00	0.00	< 0.005	< 0.005	< 0.005	7.75
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	16.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.23
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	0.50
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	0.08

3.13. Architectural Coating (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	0.11	0.83	0.02	—	0.02	0.02	—	0.02	134
Architectural Coatings	103	—	—	—	—	—	—	—	—
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	4.04

Architectural Coatings	3.10	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005	0.67
Architectural Coatings	0.56	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	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	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	2.68
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 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	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	0.00	0.00	0.00

3.14. Architectural Coating (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	0.02	0.65	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	134	—
Architectural Coatings	103	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.04	—
Architectural Coatings	3.10	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	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	< 0.005	< 0.005	0.67	—
Architectural Coatings	0.56	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	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	< 0.005	0.00	< 0.005	< 0.005	2.68	—
Vendor	0.00	0.00	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 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	0.00	0.00

Hauling	0.00	0.00	0.00	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	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.01	0.01
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00

3.15. Trenching (2026) - 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	1.86	0.06	—	0.06	0.05	—	0.05	433
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	7.13
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	1.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.67

Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 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	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	0.00	0.00	0.00

3.16. Trenching (2026) - 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	0.81	0.01	—	0.01	0.01	—	0.01	433
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	7.13
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	1.18
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	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	2.67	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. 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	1/1/2026	2/1/2026	5.00	22.0	—
Site Preparation	Site Preparation	2/2/2026	2/4/2026	5.00	3.00	—
Grading	Grading	2/5/2026	2/12/2026	5.00	6.00	—
Building Construction	Building Construction	2/23/2026	1/26/2027	5.00	242	—
Paving	Paving	2/11/2027	2/25/2027	5.00	11.0	—
Architectural Coating	Architectural Coating	1/27/2027	2/10/2027	5.00	11.0	—
Trenching	Trenching	2/13/2026	2/22/2026	5.00	6.00	—

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	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
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
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	8.00	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	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Site Preparation	Scrapers	Diesel	Tier 4 Final	1.00	8.00	423	0.48
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
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37

Trenching	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
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5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT
Demolition	Hauling	9.45	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	39.7	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.9	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	3.85	0.50	HHDT,MHDT
Building Construction	Hauling	1.10	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2

Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	4.73	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.18	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	0.50	LDA,LDT1,LDT2
Trenching	Vendor	—	0.50	HHDT,MHDT
Trenching	Hauling	0.00	0.50	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT
Demolition	Hauling	9.45	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	0.50	LDA,LDT1,LDT2

Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	39.7	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.9	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	3.85	0.50	HHDT,MHDT
Building Construction	Hauling	1.10	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	4.73	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.18	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	0.50	LDA,LDT1,LDT2
Trenching	Vendor	—	0.50	HHDT,MHDT
Trenching	Hauling	0.00	0.50	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	162,468	54,156	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	4,100	—
Site Preparation	—	—	4.50	0.00	—
Grading	1,900	0.00	6.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse High Rise	—	0%
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
2026	0.00	2.34	0.00	0.00
2027	0.00	2.34	0.00	0.00

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
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	12.7	annual days of extreme heat
Extreme Precipitation	4.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.55	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	14.9	

AQ-PM	16.9
AQ-DPM	93.9
Drinking Water	49.5
Lead Risk Housing	14.5
Pesticides	0.00
Toxic Releases	31.4
Traffic	81.0
Effect Indicators	—
CleanUp Sites	97.8
Groundwater	96.8
Haz Waste Facilities/Generators	73.6
Impaired Water Bodies	51.2
Solid Waste	0.00
Sensitive Population	—
Asthma	8.19
Cardio-vascular	17.3
Low Birth Weights	25.9
Socioeconomic Factor Indicators	—
Education	8.42
Housing	34.2
Linguistic	35.3
Poverty	21.3
Unemployment	32.3

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	92.24945464
Employed	82.72808931
Median HI	86.37238547
Education	—
Bachelor's or higher	95.11099705
High school enrollment	100
Preschool enrollment	19.31220326
Transportation	—
Auto Access	63.41588605
Active commuting	88.1688695
Social	—
2-parent households	71.2947517
Voting	93.45566534
Neighborhood	—
Alcohol availability	24.00872578
Park access	37.5465161
Retail density	85.96176055
Supermarket access	52.49582959
Tree canopy	87.45027589
Housing	—
Homeownership	37.32837162
Housing habitability	50.66084948
Low-inc homeowner severe housing cost burden	48.97985371
Low-inc renter severe housing cost burden	38.43192609
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	84.28076479
Arthritis	91.0

Asthma ER Admissions	91.0
High Blood Pressure	87.1
Cancer (excluding skin)	47.4
Asthma	91.1
Coronary Heart Disease	91.8
Chronic Obstructive Pulmonary Disease	95.5
Diagnosed Diabetes	92.6
Life Expectancy at Birth	77.3
Cognitively Disabled	78.9
Physically Disabled	92.6
Heart Attack ER Admissions	69.7
Mental Health Not Good	94.2
Chronic Kidney Disease	90.3
Obesity	91.0
Pedestrian Injuries	57.3
Physical Health Not Good	96.7
Stroke	93.8
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	93.7
No Leisure Time for Physical Activity	94.4
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	94.5
Elderly	48.0
English Speaking	64.4
Foreign-born	74.7

Outdoor Workers	55.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	44.4
Traffic Density	76.1
Traffic Access	63.1
Other Indices	—
Hardship	8.3
Other Decision Support	—
2016 Voting	90.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	20.0
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Healthy 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	Mountain View default clean energy provider is Silicon Valley Clean Energy. 2023 power content label = 58 lb/MWh.
Construction: Construction Phases	Defaults - added trenching. Ratioed to meet provided construction schedule length of 14 months.
Construction: Off-Road Equipment	Defaults - added trenching.
Land Use	Total lot acreage, number of units, square footage, number of guest parking spaces, and landscape area provided by plans.
Construction: Trips and VMT	Demolition = Est. 80 demo'ed pavement hauling truck round trips (7.27 trips/day), Building Const = Est. 133 concrete truck round trips (1.10 trips/day), Paving = Est. 26 asphalt truck round trips (4.73 trips/day). HRA = 0.5 mile trip length of localized emissions.
Operations: Hearths	No hearths.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

**Attachment 2: Project Construction Dispersion Modeling Inputs and
Health Risk Calculations**

Construction Health Risk Assessment and Calculations

924-940 San Rafael Avenue, Mountain View, CA

DPM Construction Emissions and Modeling Emission Rates - Without Mitigation

Construction		DPM	Source	No.	DPM Emissions			Emissions per Point Source
Year	Activity	(ton/year)	Type	Sources	(lb/yr)	(lb/hr)	(g/s)	(g/s)
2026+2027	Construction	0.0527	Point	141	105.3	0.03683	4.64E-03	3.29E-05
Total		0.0527			105.3	0.0368	0.0046	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (M-F 7am - 6pm)
 days/yr = 260
 hours/year = 2860

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction		DPM	Source	No.	DPM Emissions			Emissions per Point Source
Year	Activity	(ton/year)	Type	Sources	(lb/yr)	(lb/hr)	(g/s)	(g/s)
2026+2027	Construction	0.0095	Point	141	19.0	0.00666	8.39E-04	5.95E-06
Total		0.0095			19.0	0.0067	0.0008	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (M-F 7am - 6pm)
 days/yr = 260
 hours/year = 2860

924-940 San Rafael Avenue, Mountain View, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling - Without Mitigation

Construction		Area	PM2.5 Emissions				Modeled Area	DPM Emission Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2026+2027	Construction	CON_FUG	0.0112	22.5	0.00785	9.90E-04	7245.321	1.37E-07
Total			0.0112	22.5	0.0079	0.0010		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (M-F 7am - 6pm)
 days/yr = 260
 hours/year = 2860

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

Construction		Area	PM2.5 Emissions				Modeled Area	DPM Emission Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2026+2027	Construction	CON_FUG	0.0048	9.6	0.00336	4.23E-04	7245.321	5.84E-08
Total			0.0048	9.6	0.0034	0.0004		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (M-F 7am - 6pm)
 days/yr = 260
 hours/year = 2860

924-940 San Rafael Avenue, Mountain View, CA

- Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfm)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0
Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

924-940 San Rafael Avenue, Mountain View, CA

Construction Health Impact Summary

Maximum Impacts at MEI Location - Without Mitigation

Construction Year	Maximum Concentrations		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)	Infant/Child	Adult		
2026 + 2027	0.1150	0.1458	20.44	0.33	0.02	0.24
Total	-	-	20.44	0.33		-
Maximum	0.1150	0.1458	-	-	0.02	0.24

Maximum Impacts at MEI Location - With Mitigation

Construction Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m ³)	(µg/m ³)	Infant/Child	Adult	(-)	(µg/m ³)
2026 + 2027	0.0208	0.0622	3.70	0.06	0.004	0.08
Total	-	-	3.70	0.06	-	-
Maximum	0.0208	0.0622	-	-	0.004	0.08

- Tier 4 Final Engines and basic BMPs Mitigation.

Maximum Impacts at Worker Receptors - Without Mitigation

Construction Year	Maximum Concentrations		Adult Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)
	Exhaust PM10/DPM ($\mu\text{g}/\text{m}^3$)	Fugitive PM2.5 ($\mu\text{g}/\text{m}^3$)			
2026 + 2027	0.0218	0.0316	0.11	0.004	0.05
Total	-	-	0.11	-	-
Maximum	0.0218	0.0316	-	0.004	0.05

924-940 San Rafael Avenue, Mountain View, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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)	Year		
0	0.25	-0.25 - 0*	2026 + 2027	0.1150	10	1.56	2026 + 2027	0.1150	-	-
1	1	0 - 1	2026 + 2027	0.1150	10	18.88	2026 + 2027	0.1150	1	0.33
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00
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						20.44				0.33

* Third trimester of pregnancy

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.02	0.15	0.24

924-940 San Rafael Avenue, Mountain View, CA - Construction Risks at Adult Worker Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Unmitigated
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)
		Modeled		Age Sensitivity Factor	
		DPM Conc (ug/m3)			
		Year	Annual		
1	1	2025 + 2026	0.0218	1	0.11
2	1		0.0000	1	0.00
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					0.11

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.004	0.03	0.05

924-940 San Rafael Avenue, Mountain View, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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 DPM Conc (ug/m3)		Age Sensitivity Factor	
			Year	Annual	Factor		Year	Annual	Factor	
0	0.25	-0.25 - 0*	2026 + 2027	0.0208	10	0.28	2026 + 2027	0.0208	-	-
1	1	0 - 1	2026 + 2027	0.0208	10	3.41	2026 + 2027	0.0208	1	0.06
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00
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						3.70				0.06

* Third trimester of pregnancy

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.004	0.06	0.08

**Attachment 3: Cumulative Screening, Modeling, and Health Risk
Calculations from Existing TAC Sources**

CT-EMFAC2021 Emissions Factors for Santa Clara County 2026

File Name:	US 101 2026.EF				
CT-EMFAC2021 Version:	1.0.2.0				
Run Date:	1/28/2025 12:07				
Area:	Santa Clara (SF)				
Analysis Year:	2026				
Season:	Annual				
=====					
Vehicle Category	VMT Fraction	Diesel VM	Gas VMT Fraction		
	Across Category	Within Ca	Within Category		
Truck 1	0.025	0.416	0.563		
Truck 2	0.02	0.904	0.045		
Non-Truck	0.955	0.007	0.914		
=====					
Road Type:	Freeway				
Silt Loading Factor:	CARB		0.015 g/m2		
Precipitation Correction:	CARB		P = 63 day N = 365 days		
=====					
Fleet Average Running Exhaust Emission Factors (grams/veh-mile)					
Pollutant Name	50 mph	55 mph	60 mph	65 mph	
PM2.5	0.001243	0.001326	0.001476	0.001701	
TOG	0.0154	0.015462	0.016359	0.018153	
Diesel PM	0.000485	0.000557	0.000648	0.00075	
=====					
Fleet Average Running Loss Emission Factors (grams/veh-hour)					
Pollutant Name	Emission Factor				
TOG	0.974067				
=====					
Fleet Average Tire Wear Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.002115				
=====					
Fleet Average Brake Wear Factors (grams/veh-mile)					
Pollutant Name	50 mph	55 mph	60 mph	65 mph	
PM2.5	0.003181	0.002548	0.002248	0.001949	
=====					
Fleet Average Road Dust Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.00784				
=====END=====					

File Name:	SR 85 2026.EF				
CT-EMFAC2021 Version:	1.0.2.0				
Run Date:	1/28/2025 12:25				
Area:	Santa Clara (SF)				
Analysis Year:	2026				
Season:	Annual				

Vehicle Category	VTM Fraction	Diesel VM	Gas VMT Fraction		
	Across Category	Within Category	Within Category		
Truck 1	0.007	0.416	0.563		
Truck 2	0.013	0.904	0.045		
Non-Truck	0.98	0.007	0.914		

Road Type:	Freeway				
Silt Loading Factor	CARB		0.015 g/m2		
Precipitation Correction	CARB		P = 63 day N = 365 days		

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)					
Pollutant Name	60 mph	65 mph	70 mph		
PM2.5	0.001244	0.001429	0.001523		
TOG	0.01558	0.017376	0.018676		
Diesel PM	0.000397	0.000468	0.000471		

Fleet Average Running Loss Emission Factors (grams/veh-hour)					
Pollutant Name	Emission Factor				
TOG	0.973733				

Fleet Average Tire Wear Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.002074				

Fleet Average Brake Wear Factors (grams/veh-mile)					
Pollutant Name	60 mph	65 mph	70 mph		
PM2.5	0.00162	0.001313	0.001313		

Fleet Average Road Dust Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.007274				

=====END=====

Analysis Year = 2026						
Vehicle Type	2022 Caltrans Vehicles (veh/day)	2026 Vehicles (veh/day)				
Total	205,000	213,200	106600			
Increase From 2022 Vehicles/Direction		1.04				
Avg Vehicles/Hour/Direction		106,600				
		4,442				
Traffic Data Year = 2022						
Traffic Study	AADT Total	Total Truck	Trucks by Axle			
			2	3	4	5
Caltrans spreadsheet	205,000	9,225	5,056	1,397	325	2,447
			54.81%	15.14%	3.52%	26.53%
Percent of Total Vehicles		4.50%	2.47%	0.68%	0.16%	1.19%
Traffic Increase per Year (%) = 1.00%						

											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	
DPM_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	67.7	3.4	59.0	106,600	6,317	67,996	2.787E-08	2.055E-08	6.8	3.16	
DPM_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	67.7	3.4	61.7	106,600	8,803	94,755	2.787E-08	2.055E-08	6.8	3.16	
									Total	213,200							

Emission Factors from CT-EMFAC2021

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	1100	4.36E-05	9	6.12%	6527	1.67E-04	17	5.98%	6373	1.63E-04
2	0.70%	743	2.94E-05	10	6.19%	6604	1.69E-04	18	5.87%	6258	1.60E-04
3	0.64%	678	2.69E-05	11	5.91%	6304	1.86E-04	19	5.29%	5638	1.66E-04
4	0.84%	896	3.55E-05	12	5.80%	6184	1.82E-04	20	4.46%	4755	1.63E-04
5	1.67%	1785	7.08E-05	13	5.64%	6008	2.06E-04	21	4.03%	4296	1.70E-04
6	3.42%	3650	1.45E-04	14	5.71%	6086	2.08E-04	22	3.48%	3714	1.47E-04
7	5.04%	5370	1.84E-04	15	6.05%	6452	1.90E-04	23	2.69%	2865	1.14E-04
8	5.77%	6156	1.58E-04	16	5.97%	6363	1.87E-04	24	1.68%	1795	7.12E-05
Total										106,600	

% Per Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.37%	1461	8.07E-05	9	5.71%	6086	2.90E-04	17	6.37%	6785	2.78E-04
2	0.88%	942	5.20E-05	10	5.84%	6225	2.97E-04	18	6.16%	6564	2.34E-04
3	0.64%	680	3.76E-05	11	5.82%	6208	2.96E-04	19	5.90%	6293	2.58E-04
4	0.49%	523	2.89E-05	12	5.86%	6249	2.98E-04	20	5.48%	5845	2.79E-04
5	0.78%	831	4.59E-05	13	6.10%	6502	3.10E-04	21	4.74%	5053	2.79E-04
6	1.64%	1745	9.64E-05	14	6.26%	6669	3.18E-04	22	4.07%	4334	2.39E-04
7	2.87%	3063	1.69E-04	15	6.21%	6621	3.16E-04	23	3.37%	3589	1.98E-04
8	4.74%	5055	2.79E-04	16	6.33%	6749	3.22E-04	24	2.37%	2525	1.39E-04
Total										106,600	

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 101
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average	Average	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
									Speed (mph)	Vehicles per Day						
PM2.5 NB 101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	106,600	6,317	67,996	6.32E-08	4.66E-08	2.6	1.21
PM2.5 SB 101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	106,600	8,803	94,755	6.32E-08	4.66E-08	2.6	1.21
									Total	213,200						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle (g/VMT)	0.001701	0.00148	0.001326	0.001243

Emission Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	1100	9.89E-05	9	6.12%	6527	4.29E-04	17	5.98%	6373	4.19E-04
2	0.70%	743	6.68E-05	10	6.19%	6604	4.34E-04	18	5.87%	6258	4.11E-04
3	0.64%	678	6.09E-05	11	5.91%	6304	4.42E-04	19	5.29%	5638	3.95E-04
4	0.84%	896	8.05E-05	12	5.80%	6184	4.33E-04	20	4.46%	4755	3.71E-04
5	1.67%	1785	1.61E-04	13	5.64%	6008	4.69E-04	21	4.03%	4296	3.86E-04
6	3.42%	3650	3.28E-04	14	5.71%	6086	4.75E-04	22	3.48%	3714	3.34E-04
7	5.04%	5370	4.19E-04	15	6.05%	6452	4.52E-04	23	2.69%	2865	2.58E-04
8	5.77%	6156	4.04E-04	16	5.97%	6363	4.46E-04	24	1.68%	1795	1.61E-04
Total										106,600	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5 SB_101

[illegible]

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	106,600	6,317	67,996	6.75E-07	4.97E-07	2.6	1.21
TEXH_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	106,600	8,803	94,755	6.75E-07	4.97E-07	2.6	1.21
									Total	213,200						

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle (g/VMT)	0.01815	0.01636	0.01546	0.01540

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_101

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_101

[illegible]

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	106,600	6,317	67,996	5.57E-07	4.11E-07	2.6	1.21
TEVAP_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	106,600	8,803	94,755	5.57E-07	4.11E-07	2.6	1.21
									Total	213,200						

Emission Factors - PM2.5 - Evaporative TOG				
Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle per Hour (g/hour)	0.97407	0.97407	0.97407	0.97407
Emissions per Vehicle per Mile (g/VMI)	0.01499	0.01623	0.01771	0.01948

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_101

[illegible][illegible]

Year = 2026

Emission Factors from CT-EMFAC2021

[illegible]

**924-940 San Rafael Avenue, Mountain View, CA - US 101 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptors (1.5 meter receptor height)**

<u>Emission Year</u>	2026
<u>Receptor Information</u>	Construction MEI receptors
Number of Receptors	2
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI locations

Meteorological Conditions

BAAQMD Moffett Federal Airfield Met Data 2013 - 2017	
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Cancer Risk MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.0015	0.0446	0.0426

Construction PM2.5 MEI Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.0505	0.0449	0.0056

**924-940 San Rafael Avenue, Mountain View, CA - US 101 Cancer Risk
Impacts at Project MEI - 1.5 meter receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-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*	2026	10	0.0015	0.0446	0.0426	0.021	0.003	0.0002	0.02
1	1	0 - 1	2026	10	0.0015	0.0446	0.0426	0.251	0.042	0.0024	0.30
2	1	1 - 2	2027	10	0.0015	0.0446	0.0426	0.251	0.042	0.0024	0.30
3	1	2 - 3	2028	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
4	1	3 - 4	2029	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
5	1	4 - 5	2030	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
6	1	5 - 6	2031	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
7	1	6 - 7	2032	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
8	1	7 - 8	2033	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
9	1	8 - 9	2034	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
10	1	9 - 10	2035	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
11	1	10 - 11	2036	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
12	1	11 - 12	2037	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
13	1	12 - 13	2038	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
14	1	13 - 14	2039	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
15	1	14 - 15	2040	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
16	1	15 - 16	2041	3	0.0015	0.0446	0.0426	0.040	0.007	0.0004	0.05
17	1	16-17	2042	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
18	1	17-18	2043	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
19	1	18-19	2044	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
20	1	19-20	2045	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
21	1	20-21	2046	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
22	1	21-22	2047	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
23	1	22-23	2048	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
24	1	23-24	2049	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
25	1	24-25	2050	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
26	1	25-26	2051	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
27	1	26-27	2052	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
28	1	27-28	2053	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
29	1	28-29	2054	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
30	1	29-30	2055	1	0.0015	0.0446	0.0426	0.004	0.001	0.0000	0.01
Total Increased Cancer Risk								1.16	0.189	0.011	1.36

* Third trimester of pregnancy

Maximum
Hazard Index 0.0003 Fugitive PM2.5 0.04 Total PM2.5 0.05

Analysis Year = 2026

Vehicle Type	2022 Caltrans Vehicles (veh/day)	2026 Vehicles (veh/day)
Total	67,000	69,680

Increase From 2022

Vehicles/Direction

Avg Vehicles/Hour/Direction

1.04

34,840

1,452

Traffic Data Year = 2022

Traffic Study	AADT Total	Total Truck	Trucks by Axle			
			2	3	4	5
Caltrans spreadsheet	67,000	1,340	452	103	27	758
			33.70%	7.70%	2.00%	56.60%
Percent of Total Vehicles		2.00%	0.67%	0.15%	0.04%	1.13%
Traffic Increase per Year (%) = 1.00%						

1,340

1.3%

0.7%

2.00%

98.0%

Trucks

HDT

MDT

Total

Other

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 85
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

											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
DPM_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	55.7	3.4	68.1	34,840	9,617	103,514	6.953E-09	5.127E-09	6.8	3.16
DPM_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	55.7	3.4	64.6	34,840	11,935	128,470	6.953E-09	5.127E-09	6.8	3.16
									Total	69,680						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.00047	0.000468	0.000397	

Emission Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_85

	% Per				% Per				% Per		
Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s	Hour	Hour	VPH	g/s
1	0.63%	218	1.00E-05	9	7.73%	2692	1.23E-04	17	5.99%	2087	9.61E-05
2	0.35%	120	5.54E-06	10	7.69%	2679	1.04E-04	18	5.95%	2073	9.49E-05
3	0.28%	99	4.57E-06	11	6.90%	2402	1.10E-04	19	5.32%	1855	8.49E-05
4	0.43%	148	6.82E-06	12	6.39%	2225	1.02E-04	20	4.58%	1596	7.35E-05
5	0.90%	315	1.45E-05	13	6.05%	2109	9.65E-05	21	3.80%	1324	6.10E-05
6	2.50%	870	4.01E-05	14	5.77%	2011	9.26E-05	22	3.05%	1064	4.90E-05
7	4.38%	1525	7.02E-05	15	5.76%	2005	9.24E-05	23	2.09%	727	3.35E-05
8	6.29%	2193	1.00E-04	16	5.96%	2078	9.57E-05	24	1.22%	424	1.95E-05
Total										34,840	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM SB 85

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	402	2.28E-05	9	4.64%	1616	9.18E-05	17	7.97%	2775	1.34E-04
2	0.69%	240	1.36E-05	10	4.69%	1633	9.27E-05	18	7.97%	2778	1.34E-04
3	0.44%	152	8.64E-06	11	4.98%	1735	9.86E-05	19	6.73%	2346	1.33E-04
4	0.29%	100	5.67E-06	12	5.53%	1927	1.09E-04	20	5.68%	1981	1.13E-04
5	0.36%	124	7.07E-06	13	6.18%	2153	1.22E-04	21	4.74%	1650	9.37E-05
6	0.77%	269	1.53E-05	14	6.52%	2272	1.29E-04	22	4.04%	1409	8.00E-05
7	1.84%	641	3.64E-05	15	7.69%	2680	1.52E-04	23	3.31%	1154	6.56E-05
8	3.93%	1370	7.78E-05	16	7.77%	2705	1.54E-04	24	2.08%	724	4.11E-05
								Total		34,840	

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 85
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5 NB 85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	34,840	9,617	103,514	2.25E-08	1.66E-08	2.6	1.21
PM2.5 SB 85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.583333	34,840	11,935	128,470	2.25E-08	1.66E-08	2.6	1.21
									Total	69,680						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.001523	0.00143	0.001244	

Emission Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5 NB 85

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.63%	218	3.25E-05	9	7.73%	2692	3.76E-04	17	5.99%	2087	3.11E-04
2	0.35%	120	1.79E-05	10	7.69%	2679	3.26E-04	18	5.95%	2073	2.90E-04
3	0.28%	99	1.48E-05	11	6.90%	2402	3.36E-04	19	5.32%	1855	2.59E-04
4	0.43%	148	2.21E-05	12	6.39%	2225	3.11E-04	20	4.58%	1596	2.38E-04
5	0.90%	315	4.69E-05	13	6.05%	2109	2.95E-04	21	3.80%	1324	1.97E-04
6	2.50%	870	1.30E-04	14	5.77%	2011	3.00E-04	22	3.05%	1064	1.58E-04
7	4.38%	1525	2.27E-04	15	5.76%	2005	2.99E-04	23	2.09%	727	1.08E-04
8	6.29%	2193	3.06E-04	16	5.96%	2078	3.09E-04	24	1.22%	424	6.31E-05
Total										34,840	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5 SB 85

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	402	6.97E-05	9	4.64%	1616	2.80E-04	17	7.97%	2775	4.19E-04
2	0.69%	240	4.16E-05	10	4.69%	1633	2.83E-04	18	7.97%	2778	4.19E-04
3	0.44%	152	2.64E-05	11	4.98%	1735	3.01E-04	19	6.73%	2346	4.07E-04
4	0.29%	100	1.73E-05	12	5.53%	1927	3.34E-04	20	5.68%	1981	3.44E-04
5	0.36%	124	2.16E-05	13	6.18%	2153	3.73E-04	21	4.74%	1650	2.86E-04
6	0.77%	269	4.67E-05	14	6.52%	2272	3.94E-04	22	4.04%	1409	2.44E-04
7	1.84%	641	1.11E-04	15	7.69%	2680	4.65E-04	23	3.31%	1154	2.00E-04
8	3.93%	1370	2.38E-04	16	7.77%	2705	4.69E-04	24	2.08%	724	1.26E-04
Total										34,840	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	34,840	9,617	103,514	2.76E-07	2.03E-07	2.6	1.21
TEXH_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.583333	34,840	11,935	128,470	2.76E-07	2.03E-07	2.6	1.21
									Total	69,680						

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.01868	0.01738	0.01558	

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_85

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_85

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	402	8.48E-04	9	4.64%	1616	3.41E-03	17	7.97%	2775	5.25E-03
2	0.69%	240	5.06E-04	10	4.69%	1633	3.44E-03	18	7.97%	2778	5.25E-03
3	0.44%	152	3.21E-04	11	4.98%	1735	3.66E-03	19	6.73%	2346	4.95E-03
4	0.29%	100	2.11E-04	12	5.53%	1927	4.06E-03	20	5.68%	1981	4.18E-03
5	0.36%	124	2.63E-04	13	6.18%	2153	4.54E-03	21	4.74%	1650	3.48E-03
6	0.77%	269	5.68E-04	14	6.52%	2272	4.79E-03	22	4.04%	1409	2.97E-03
7	1.84%	641	1.35E-03	15	7.69%	2680	5.65E-03	23	3.31%	1154	2.43E-03
8	3.93%	1370	2.89E-03	16	7.77%	2705	5.71E-03	24	2.08%	724	1.53E-03
Total										34,840	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	34,840	9,617	103,514	2.05E-07	1.51E-07	2.6	1.21
TEVAP_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.58333	34,840	11,935	128,470	2.05E-07	1.51E-07	2.6	1.21
									Total	69,680						

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle per Hour (g/hour)	0.97373	0.97373	0.97373	
Emissions per Vehicle per Mile (g/VMT)	0.01391	0.01498	0.01623	

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.63%	218	2.97E-04	9	7.73%	2692	3.94E-03	17	5.99%	2087	2.84E-03
2	0.35%	120	1.64E-04	10	7.69%	2679	4.25E-03	18	5.95%	2073	3.04E-03
3	0.28%	99	1.35E-04	11	6.90%	2402	3.52E-03	19	5.32%	1855	2.72E-03
4	0.43%	148	2.01E-04	12	6.39%	2225	3.26E-03	20	4.58%	1596	2.17E-03
5	0.90%	315	4.28E-04	13	6.05%	2109	3.09E-03	21	3.80%	1324	1.80E-03
6	2.50%	870	1.18E-03	14	5.77%	2011	2.74E-03	22	3.05%	1064	1.45E-03
7	4.38%	1525	2.07E-03	15	5.76%	2005	2.73E-03	23	2.09%	727	9.89E-04
8	6.29%	2193	3.21E-03	16	5.96%	2078	2.83E-03	24	1.22%	424	5.77E-04
Total										34,840	

[illegible]

**924-940 San Rafael Avenue, Mountain View, CA - SR 85 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptors (1.5 meter receptor height)**

<u>Emission Year</u>	2026
<u>Receptor Information</u>	Construction MEI receptors
Number of Receptors	2
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI locations

Meteorological Conditions

BAAQMD Moffett Federal Airfield Met Data 2013 - 2017	
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction Cancer Risk MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.0005	0.0204	0.0175

Construction PM2.5 MEI Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.0199	0.0175	0.0023

924-940 San Rafael Avenue, Mountain View, CA - SR 85 Cancer Risk
Impacts at Project MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-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	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)										
0	0.25	-0.25 - 0*	2026	10	0.0005	0.0204	0.0175	0.006	0.002	0.0001	0.01
1	1	0 - 1	2026	10	0.0005	0.0204	0.0175	0.077	0.019	0.0010	0.10
2	1	1 - 2	2027	10	0.0005	0.0204	0.0175	0.077	0.019	0.0010	0.10
3	1	2 - 3	2028	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
4	1	3 - 4	2029	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
5	1	4 - 5	2030	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
6	1	5 - 6	2031	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
7	1	6 - 7	2032	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
8	1	7 - 8	2033	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
9	1	8 - 9	2034	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
10	1	9 - 10	2035	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
11	1	10 - 11	2036	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
12	1	11 - 12	2037	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
13	1	12 - 13	2038	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
14	1	13 - 14	2039	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
15	1	14 - 15	2040	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
16	1	15 - 16	2041	3	0.0005	0.0204	0.0175	0.012	0.003	0.0002	0.02
17	1	16-17	2042	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0005	0.0204	0.0175	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.35	0.086	0.004	0.44

* Third trimester of pregnancy

Maximum
 Hazard Index 0.0001
 Fugitive PM2.5 0.02
 Total PM2.5 0.02

CT-EMFAC2021 Emissions Factors for Santa Clara County 2027

File Name:	US 101 2027.EF				
CT-EMFAC2021 Version:	1.0.2.0				
Run Date:	1/28/2025 12:09				
Area:	Santa Clara (SF)				
Analysis Year:	2027				
Season:	Annual				
=====					
Vehicle Category	VMT Fraction	Diesel VM	Gas VMT Fraction		
	Across Category	Within Category	Within Category		
Truck 1	0.025	0.414	0.553		
Truck 2	0.02	0.896	0.045		
Non-Truck	0.955	0.007	0.911		
=====					
Road Type:	Freeway				
Silt Loading Factor:	CARB		0.015 g/m2		
Precipitation Correction:	CARB		P = 63 day N = 365 days		
=====					
Fleet Average Running Exhaust Emission Factors (grams/veh-mile)					
Pollutant Name	50 mph	55 mph	60 mph	65 mph	
PM2.5	0.001182	0.001263	0.001408	0.001625	
TOG	0.014275	0.014321	0.01514	0.016784	
Diesel PM	0.00046	0.000531	0.000621	0.000722	
=====					
Fleet Average Running Loss Emission Factors (grams/veh-hour)					
Pollutant Name	Emission Factor				
TOG	0.955398				
=====					
Fleet Average Tire Wear Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.002115				
=====					
Fleet Average Brake Wear Factors (grams/veh-mile)					
Pollutant Name	50 mph	55 mph	60 mph	65 mph	
PM2.5	0.003175	0.002543	0.002243	0.001944	
=====					
Fleet Average Road Dust Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.007855				
=====END=====					

File Name:	SR 85 2027.EF				
CT-EMFAC2021 Version:	1.0.2.0				
Run Date:	1/28/2025 12:26				
Area:	Santa Clara (SF)				
Analysis Year:	2027				
Season:	Annual				
=====					
Vehicle Category	VMT Fraction	Diesel VM	Gas VMT Fraction		
	Across Category	Within Ca	Within Category		
Truck 1	0.007	0.414	0.553		
Truck 2	0.013	0.896	0.045		
Non-Truck	0.98	0.007	0.911		
=====					
Road Type:	Freeway				
Silt Loading Factor:	CARB		0.015 g/m2		
Precipitation Correction	CARB		P = 63 day N = 365 days		
=====					
Fleet Average Running Exhaust Emission Factors (grams/veh-mile)					
Pollutant Name	60 mph	65 mph	70 mph		
PM2.5	0.001186	0.001365	0.001453		
TOG	0.014426	0.016082	0.017279		
Diesel PM	0.00038	0.00045	0.000453		
=====					
Fleet Average Running Loss Emission Factors (grams/veh-hour)					
Pollutant Name	Emission Factor				
TOG	0.955919				
=====					
Fleet Average Tire Wear Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.002074				
=====					
Fleet Average Brake Wear Factors (grams/veh-mile)					
Pollutant Name	60 mph	65 mph	70 mph		
PM2.5	0.001618	0.001311	0.001311		
=====					
Fleet Average Road Dust Factors (grams/veh-mile)					
Pollutant Name	Emission Factor				
PM2.5	0.007289				
=====END=====					

Analysis Year = 2027									
Vehicle Type	2022 Caltrans Vehicles (veh/day)	2027 Vehicles (veh/day)							
Total	205,000	215,250	107625						
Increase From 2022		1.05							
Vehicles/Direction		107,625							
Avg Vehicles/Hour/Direction		4,484							
Traffic Data Year = 2022									
Traffic Study	AADT Total	Total Truck	Trucks by Axle						
			2	3	4	5			
Caltrans spreadsheet	205,000	9,225	5,056	1,397	325	2,447	9,225	Trucks	
			54.81%	15.14%	3.52%	26.53%	2.0%	HDT	
	Percent of Total Vehicles	4.50%	2.47%	0.68%	0.16%	1.19%	2.5%	MDT	
	Traffic Increase per Year (%) = 1.00%						4.50%	Total	
							95.5%	Other	
924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential									
Cumulative Traffic - Highway 101									
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions									
Year = 2027									

											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)	Initial Vertical Dimension
DPM_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	67.7	3.4	59.0	107,625	6,317	67,996	2.709E-08	1.997E-08	6.8	3.16
DPM_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	67.7	3.4	61.7	107,625	8,803	94,755	2.709E-08	1.997E-08	6.8	3.16
									Total	215,250						

Emission Factors				
Speed Category	1	2	3	4
	Travel Speed (mph)			
	65	60	55	50
Emissions per Vehicle (g/VMT)	0.00072	0.000621	0.000531	0.000460

Emission Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_101

[illegible]

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM SB 101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.37%	1475	7.84E-05	9	5.71%	6144	2.81E-04	17	6.37%	6851	2.68E-04
2	0.88%	951	5.06E-05	10	5.84%	6285	2.87E-04	18	6.16%	6627	2.25E-04
3	0.64%	687	3.65E-05	11	5.82%	6268	2.87E-04	19	5.90%	6354	2.48E-04
4	0.49%	528	2.81E-05	12	5.86%	6309	2.89E-04	20	5.48%	5901	2.70E-04
5	0.78%	839	4.46E-05	13	6.10%	6565	3.00E-04	21	4.74%	5102	2.71E-04
6	1.64%	1762	9.37E-05	14	6.26%	6733	3.08E-04	22	4.07%	4376	2.33E-04
7	2.87%	3093	1.64E-04	15	6.21%	6685	3.06E-04	23	3.37%	3623	1.93E-04
8	4.74%	5104	2.71E-04	16	6.33%	6814	3.12E-04	24	2.37%	2550	1.36E-04
Total										107,625	

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 101
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2027

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	107,625	6,317	67,996	6.10E-08	4.50E-08	2.6	1.21
PM2.5_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	107,625	8,803	94,755	6.10E-08	4.50E-08	2.6	1.21
									Total	215,250						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle (g/VMT)	0.001625	0.00141	0.001263	0.001182

Emission Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5 NB 101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	1111	9.54E-05	9	6.12%	6590	4.12E-04	17	5.98%	6434	4.02E-04
2	0.70%	750	6.44E-05	10	6.19%	6667	4.17E-04	18	5.87%	6319	3.95E-04
3	0.64%	684	5.88E-05	11	5.91%	6364	4.25E-04	19	5.29%	5692	3.80E-04
4	0.84%	904	7.77E-05	12	5.80%	6244	4.17E-04	20	4.46%	4800	3.57E-04
5	1.67%	1803	1.55E-04	13	5.64%	6066	4.51E-04	21	4.03%	4337	3.72E-04
6	3.42%	3685	3.16E-04	14	5.71%	6145	4.57E-04	22	3.48%	3749	3.22E-04
7	5.04%	5421	4.03E-04	15	6.05%	6514	4.35E-04	23	2.69%	2892	2.48E-04
8	5.77%	6215	3.88E-04	16	5.97%	6425	4.29E-04	24	1.68%	1812	1.56E-04
Total										107,625	

2027 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5 SB 101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.37%	1475	1.77E-04	9	5.71%	6144	6.37E-04	17	6.37%	6851	6.37E-04
2	0.88%	951	1.14E-04	10	5.84%	6285	6.52E-04	18	6.16%	6627	5.77E-04
3	0.64%	687	8.22E-05	11	5.82%	6268	6.50E-04	19	5.90%	6354	5.91E-04
4	0.49%	528	6.32E-05	12	5.86%	6309	6.54E-04	20	5.48%	5901	6.12E-04
5	0.78%	839	1.00E-04	13	6.10%	6565	6.81E-04	21	4.74%	5102	6.11E-04
6	1.64%	1762	2.11E-04	14	6.26%	6733	6.98E-04	22	4.07%	4376	5.24E-04
7	2.87%	3093	3.70E-04	15	6.21%	6685	6.93E-04	23	3.37%	3623	4.34E-04
8	4.74%	5104	6.11E-04	16	6.33%	6814	7.07E-04	24	2.37%	2550	3.05E-04
Total										107.625	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	107,625	6,317	67,996	6.30E-07	4.64E-07	2.6	1.21
TEXH_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	107,625	8,803	94,755	6.30E-07	4.64E-07	2.6	1.21
									Total	215,250						

Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle (g/VMT)	0.01678	0.01514	0.01432	0.01428

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_101

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_101

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.37%	1475	1.82E-03	9	5.71%	6144	6.85E-03	17	6.37%	6851	7.23E-03
2	0.88%	951	1.18E-03	10	5.84%	6285	7.01E-03	18	6.16%	6627	6.97E-03
3	0.64%	687	8.49E-04	11	5.82%	6268	6.99E-03	19	5.90%	6354	6.70E-03
4	0.49%	528	6.53E-04	12	5.86%	6309	7.04E-03	20	5.48%	5901	6.58E-03
5	0.78%	839	1.04E-03	13	6.10%	6565	7.32E-03	21	4.74%	5102	6.31E-03
6	1.64%	1762	2.18E-03	14	6.26%	6733	7.51E-03	22	4.07%	4376	5.41E-03
7	2.87%	3093	3.82E-03	15	6.21%	6685	7.45E-03	23	3.37%	3623	4.48E-03
8	4.74%	5104	6.31E-03	16	6.33%	6814	7.60E-03	24	2.37%	2550	3.15E-03
Total										107,625	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_101	Highway 101 Northbound	NB	4	306.2	0.19	20.6	68	1.3	58.958333	107,625	6,317	67,996	5.51E-07	4.07E-07	2.6	1.21
TEVAP_SB_101	Highway 101 Southbound	SB	4	426.7	0.27	20.6	68	1.3	61.666667	107,625	8,803	94,755	5.51E-07	4.07E-07	2.6	1.21
									Total	215,250						

Emission Factors - PM _{2.5} - Evaporative TOG				
Speed Category	1	2	3	4
Travel Speed (mph)	65	60	55	50
Emissions per Vehicle per Hour (g/hour)	0.95540	0.95540	0.95540	0.95540
Emissions per Vehicle per Mile (g/VMI)	0.01470	0.01592	0.01737	0.01911

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_101

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.03%	1111	8.63E-04	9	6.12%	6590	6.66E-03	17	5.98%	6434	6.50E-03
2	0.70%	750	5.83E-04	10	6.19%	6667	6.73E-03	18	5.87%	6319	6.38E-03
3	0.64%	684	5.31E-04	11	5.91%	6364	5.84E-03	19	5.29%	5692	5.23E-03
4	0.84%	904	7.03E-04	12	5.80%	6244	5.73E-03	20	4.46%	4800	4.04E-03
5	1.67%	1803	1.40E-03	13	5.64%	6066	5.10E-03	21	4.03%	4337	3.37E-03
6	3.42%	3685	2.86E-03	14	5.71%	6145	5.17E-03	22	3.48%	3749	2.91E-03
7	5.04%	5421	4.56E-03	15	6.05%	6514	5.98E-03	23	2.69%	2892	2.25E-03
8	5.77%	6215	6.28E-03	16	5.97%	6425	5.90E-03	24	1.68%	1812	1.41E-03
Total										107,625	

[illegible]

Year = 2027

[illegible]

**924-940 San Rafael Avenue, Mountain View, CA - US 101 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite Max TAC Location (4.5 meter receptor height)**

<u>Emission Year</u>	2027
<u>Receptor Information</u>	Onsite Max TAC Location
Number of Receptors	141
Receptor Height	4.5 meters
Receptor Distances	7 meter grid spacing in project area

Meteorological Conditions

BAAQMD Moffett Federal Airfield Met Data 2013 - 2017	
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.0031	0.0888	0.0918

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.0783	0.0701	0.0082

**924-940 San Rafael Avenue, Mountain View, CA - US 101 Cancer Risk
Impacts at Onsite Max TAC Location - 4.5 meter receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

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 TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)				DPM						
0	0.25	-0.25 - 0*	2027	10	0.0031	0.0888	0.0918	0.042	0.007	0.0004	0.05
1	1	0 - 1	2027	10	0.0031	0.0888	0.0918	0.506	0.083	0.0051	0.59
2	1	1 - 2	2028	10	0.0031	0.0888	0.0918	0.506	0.083	0.0051	0.59
3	1	2 - 3	2029	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
4	1	3 - 4	2030	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
5	1	4 - 5	2031	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
6	1	5 - 6	2032	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
7	1	6 - 7	2033	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
8	1	7 - 8	2034	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
9	1	8 - 9	2035	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
10	1	9 - 10	2036	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
11	1	10 - 11	2037	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
12	1	11 - 12	2038	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
13	1	12 - 13	2039	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
14	1	13 - 14	2040	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
15	1	14 - 15	2041	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
16	1	15 - 16	2042	3	0.0031	0.0888	0.0918	0.080	0.013	0.0008	0.09
17	1	16 - 17	2043	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
18	1	17 - 18	2044	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
19	1	18 - 19	2045	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
20	1	19 - 20	2046	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
21	1	20 - 21	2047	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
22	1	21 - 22	2048	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
23	1	22 - 23	2049	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
24	1	23 - 24	2050	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
25	1	24 - 25	2051	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
26	1	25 - 26	2052	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
27	1	26 - 27	2053	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
28	1	27 - 28	2054	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
29	1	28 - 29	2055	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
30	1	29 - 30	2056	1	0.0031	0.0888	0.0918	0.009	0.001	0.0001	0.01
Total Increased Cancer Risk								2.29	0.377	0.023	2.69

* Third trimester of pregnancy

Maximum
Hazard Index
Fugitive PM2.5
Total PM2.5
0.001 0.07 0.08

Analysis Year = 2027

Vehicle Type	2022 Caltrans Vehicles (veh/day)	2027 Vehicles (veh/day)
Total	67,000	70,350

35175

Increase From 2022

1.05

Vehicles/Direction

35,175

Avg Vehicles/Hour/Direction

1,466

Traffic Data Year = 2022

Traffic Study	AADT Total	Total Truck	Trucks by Axle			
			2	3	4	5
Caltrans spreadsheet	67,000	1,340	452	103	27	758
			33.70%	7.70%	2.00%	56.60%
Percent of Total Vehicles		2.00%	0.67%	0.15%	0.04%	1.13%
Traffic Increase per Year (%) = 1.00%						

1,340 Trucks

1.3% HDT

0.7% MDT

2.00% Total

98.0% Other

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 85
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2027

										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
DPM_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	55.7	3.4	68.1	35,175	9,617	103,514	6.752E-09	4.978E-09	6.8	3.16
DPM_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	55.7	3.4	64.6	35,175	11,935	128,470	6.752E-09	4.978E-09	6.8	3.16
									Total	70,350						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.00045	0.000450	0.000380	

Emission Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and DPM Emissions - DPM NB 85

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.63%	220	9.76E-06	9	7.73%	2718	1.20E-04	17	5.99%	2107	9.33E-05
2	0.35%	121	5.38E-06	10	7.69%	2705	1.01E-04	18	5.95%	2093	9.21E-05
3	0.28%	100	4.44E-06	11	6.90%	2425	1.07E-04	19	5.32%	1873	8.24E-05
4	0.43%	150	6.62E-06	12	6.39%	2246	9.88E-05	20	4.58%	1612	7.14E-05
5	0.90%	318	1.41E-05	13	6.05%	2129	9.37E-05	21	3.80%	1337	5.92E-05
6	2.50%	879	3.89E-05	14	5.77%	2030	8.99E-05	22	3.05%	1074	4.76E-05
7	4.38%	1539	6.82E-05	15	5.76%	2024	8.97E-05	23	2.09%	734	3.25E-05
8	6.29%	2214	9.74E-05	16	5.96%	2098	9.29E-05	24	1.22%	428	1.90E-05
Total										35,175	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_85

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	406	2.22E-05	9	4.64%	1632	8.91E-05	17	7.97%	2802	1.29E-04
2	0.69%	242	1.32E-05	10	4.69%	1648	9.00E-05	18	7.97%	2805	1.29E-04
3	0.44%	154	8.39E-06	11	4.98%	1752	9.57E-05	19	6.73%	2369	1.29E-04
4	0.29%	101	5.51E-06	12	5.53%	1946	1.06E-04	20	5.68%	2000	1.09E-04
5	0.36%	126	6.86E-06	13	6.18%	2174	1.19E-04	21	4.74%	1666	9.10E-05
6	0.77%	272	1.49E-05	14	6.52%	2294	1.25E-04	22	4.04%	1423	7.77E-05
7	1.84%	647	3.53E-05	15	7.69%	2706	1.48E-04	23	3.31%	1165	6.36E-05
8	3.93%	1383	7.56E-05	16	7.77%	2732	1.49E-04	24	2.08%	731	3.99E-05
Total										35,175	

924-940 San Rafael Avenue, Mountain View, CA - Off-Site Residential
Cumulative Traffic - Highway 85
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2027

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5 NB 85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	35,175	9,617	103,514	2.17E-08	1.60E-08	2.6	1.21
PM2.5 SB 85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.583333	35,175	11,935	128,470	2.17E-08	1.60E-08	2.6	1.21
									Total	70,350						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.001453	0.00137	0.001186	

Emission Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_85

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	0.63%	220	3.13E-05	9	7.73%	2718	3.63E-04	17	5.99%	2107	2.99E-04
2	0.35%	121	1.72E-05	10	7.69%	2705	3.14E-04	18	5.95%	2093	2.79E-04
3	0.28%	100	1.42E-05	11	6.90%	2425	3.24E-04	19	5.32%	1873	2.50E-04
4	0.43%	150	2.12E-05	12	6.39%	2246	3.00E-04	20	4.58%	1612	2.29E-04
5	0.90%	318	4.52E-05	13	6.05%	2129	2.84E-04	21	3.80%	1337	1.90E-04
6	2.50%	879	1.25E-04	14	5.77%	2030	2.89E-04	22	3.05%	1074	1.53E-04
7	4.38%	1539	2.19E-04	15	5.76%	2024	2.88E-04	23	2.09%	734	1.04E-04
8	6.29%	2214	2.96E-04	16	5.96%	2098	2.98E-04	24	1.22%	428	6.08E-05
Total										35,175	

2027 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5 SB 85

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	406	6.72E-05	9	4.64%	1632	2.70E-04	17	7.97%	2802	4.03E-04
2	0.69%	242	4.01E-05	10	4.69%	1648	2.73E-04	18	7.97%	2805	4.04E-04
3	0.44%	154	2.55E-05	11	4.98%	1752	2.90E-04	19	6.73%	2369	3.92E-04
4	0.29%	101	1.67E-05	12	5.53%	1946	3.22E-04	20	5.68%	2000	3.31E-04
5	0.36%	126	2.08E-05	13	6.18%	2174	3.60E-04	21	4.74%	1666	2.76E-04
6	0.77%	272	4.50E-05	14	6.52%	2294	3.80E-04	22	4.04%	1423	2.36E-04
7	1.84%	647	1.07E-04	15	7.69%	2706	4.48E-04	23	3.31%	1165	1.93E-04
8	3.93%	1383	2.29E-04	16	7.77%	2732	4.53E-04	24	2.08%	731	1.21E-04
Total										35,175	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	35,175	9,617	103,514	2.58E-07	1.90E-07	2.6	1.21
TEXH_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.583333	35,175	11,935	128,470	2.58E-07	1.90E-07	2.6	1.21
									Total	70,350						

Speed Category	1	2	3	4
Travel Speed (mph)	70	65	60	
Emissions per Vehicle (g/VMT)	0.01728	0.01608	0.01443	

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_85

2027 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_85

	% Per				% Per				% Per		
Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile	Hour	Hour	VPH	g/mile
1	1.15%	406	7.92E-04	9	4.64%	1632	3.19E-03	17	7.97%	2802	4.91E-03
2	0.69%	242	4.72E-04	10	4.69%	1648	3.22E-03	18	7.97%	2805	4.91E-03
3	0.44%	154	3.00E-04	11	4.98%	1752	3.42E-03	19	6.73%	2369	4.62E-03
4	0.29%	101	1.97E-04	12	5.53%	1946	3.80E-03	20	5.68%	2000	3.90E-03
5	0.36%	126	2.45E-04	13	6.18%	2174	4.24E-03	21	4.74%	1666	3.25E-03
6	0.77%	272	5.31E-04	14	6.52%	2294	4.48E-03	22	4.04%	1423	2.78E-03
7	1.84%	647	1.26E-03	15	7.69%	2706	5.28E-03	23	3.31%	1165	2.27E-03
8	3.93%	1383	2.70E-03	16	7.77%	2732	5.33E-03	24	2.08%	731	1.43E-03
Total										35,175	

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_85	Highway 85 Northbound	NB	3	566.6	0.35	17.0	56	1.3	68.125	35,175	9,617	103,514	2.04E-07	1.50E-07	2.6	1.21
TEVAP_SB_85	Highway 85 Southbound	SB	3	703.2	0.44	17.0	56	1.3	64.583333	35,175	11,935	128,470	2.04E-07	1.50E-07	2.6	1.21
									Total	70,350						

Emission Factors from CT-EMFAC2021[illegible][illegible]

Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2027

Emission Factors from CT-EMFAC2021[illegible]

**924-940 San Rafael Avenue, Mountain View, CA - SR 85 Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite Max TAC Location (4.5 meter receptor height)**

<u>Emission Year</u>	2027
<u>Receptor Information</u>	Onsite Max TAC Location
Number of Receptors	141
Receptor Height	4.5 meters
Receptor Distances	7 meter grid spacing in project area

Meteorological Conditions

BAAQMD Moffett Federal Airfield Met Data 2013 - 2017	
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.0010	0.0404	0.0373

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.0305	0.0270	0.0034

**924-940 San Rafael Avenue, Mountain View, CA - SR 85 Cancer Risk
Impacts at Onsite Max TAC Location - 4.5 meter receptor height
30 Year Residential Exposure**

Cancer Risk Calculation Method

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

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

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

Where: C_{air} = concentration in air (µg/m³)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10⁻⁶ = Conversion factor

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	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
	Duration (years)										
0	0.25	-0.25 - 0*	2027	10	0.0010	0.0404	0.0373	0.013	0.003	0.0002	0.02
1	1	0 - 1	2027	10	0.0010	0.0404	0.0373	0.156	0.038	0.0021	0.20
2	1	1 - 2	2028	10	0.0010	0.0404	0.0373	0.156	0.038	0.0021	0.20
3	1	2 - 3	2029	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
4	1	3 - 4	2030	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
5	1	4 - 5	2031	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
6	1	5 - 6	2032	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
7	1	6 - 7	2033	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
8	1	7 - 8	2034	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
9	1	8 - 9	2035	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
10	1	9 - 10	2036	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
11	1	10 - 11	2037	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
12	1	11 - 12	2038	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
13	1	12 - 13	2039	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
14	1	13 - 14	2040	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
15	1	14 - 15	2041	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
16	1	15 - 16	2042	3	0.0010	0.0404	0.0373	0.025	0.006	0.0003	0.03
17	1	16 - 17	2043	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
18	1	17 - 18	2044	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
19	1	18 - 19	2045	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
20	1	19 - 20	2046	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
21	1	20 - 21	2047	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
22	1	21 - 22	2048	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
23	1	22 - 23	2049	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
24	1	23 - 24	2050	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
25	1	24 - 25	2051	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
26	1	25 - 26	2052	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
27	1	26 - 27	2053	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
28	1	27 - 28	2054	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
29	1	28 - 29	2055	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
30	1	29 - 30	2056	1	0.0010	0.0404	0.0373	0.003	0.001	0.0000	0.00
Total Increased Cancer Risk								0.71	0.172	0.009	0.89

* Third trimester of pregnancy

Maximum
Hazard Index
Fugitive PM2.5
Total PM2.5
0.0002 0.03 0.03



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	8/1/2025
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	924-940 San Rafael Ave
Address	924-940 San Rafael Ave
City	Mountain View
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	36
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** - Emissions section only.
6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRS) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRS 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 MEIs

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 PM _{2.5}
1100	112348-1	Shoreline Shell	807 N Shoreline Blvd	9.3	0.04	-		Public Records Request. CARB Gas Station Tool	NA	0.56	0.02	#VALUE!

Footnotes:

- Maximally exposed individual
- These Cancer Risk, Hazard Index, and PM_{2.5} columns represent the values in the Google Earth Plant Information Table.
- Each plant may have multiple permits and sources.
- Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
- Fuel codes: 98 = diesel, 189 = Natural Gas.
- If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
- The date that the HRSA was completed.
- Engineer who completed the HRSA. For District purposes only.
- All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
- The HRSA "Chronic Health" number represents the Hazard Index.
- Further information about common sources:
 - Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
 - 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 less.
 - 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 PM_{2.5} concentrations from co-residential dry cleaning businesses in the BAAQMD.
 - Non co-
 - Gas stations can be adjusted using BAAQMD's Gas Station Distance Multiplier worksheet.
 - Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
 - 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 PM _{2.5}
950	112348-1	NA	0.66	0.04	#VALUE!

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)	6300000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	2000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	335	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)	335	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)	335	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)	0.56	
Max Worker Cancer Risk (chances/million)	0.05	
Chronic HI	0.00	
Acute HI	0.02	

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

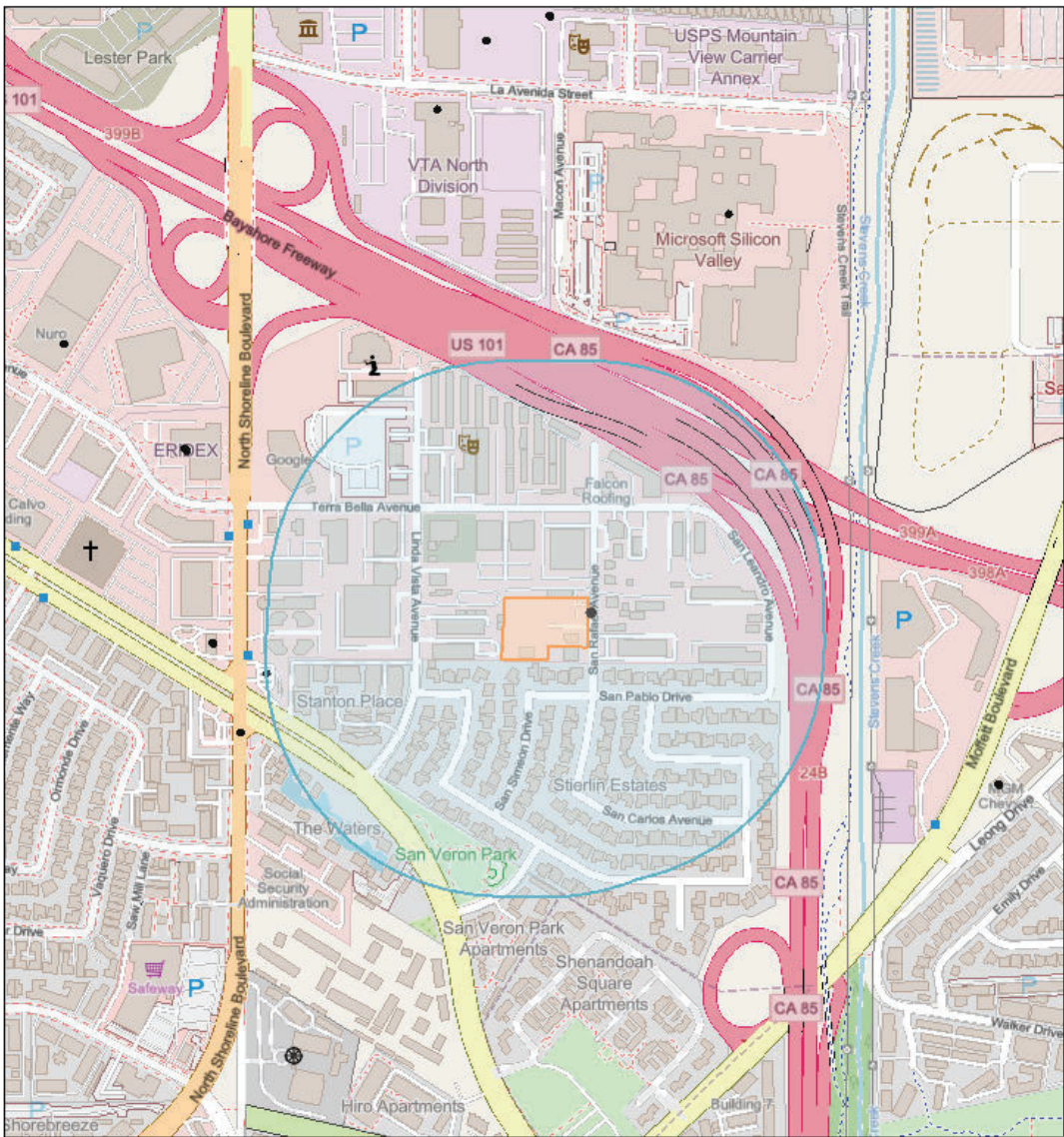
Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	6300000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	2000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	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)	0.66	
Max Worker Cancer Risk (chances/million)	0.05	
Chronic HI	0.00	
Acute HI	0.04	

Screening Report

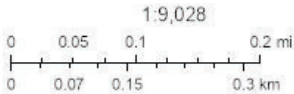
Area of Interest (AOI) Information

Area : 4,416,646.54 ft²

Jun 24 2025 10:24:25 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	1	N/A	N/A

Permitted Stationary Sources

#	Address	Cancer_Ris	Chronic_Ha	City	County
1	807 N Shoreline Blvd	9.30	0.04	Mountain View	Santa Clara

#	Details	Facility_I	Facility_N	Latitude	Longitude
1	Gas Dispensing Facility	112348-1	Shoreline Shell	37.41	-122.08

#	NAICS	NAICS_Indu	NAICS_Sect	NAICS_Subs	PM25
1	447110	Gasoline Stations with Convenience Stores	Retail Trade	Gasoline Stations	0.00

#	State	Zip	Count
1	CA	94043	1

NOTE: A larger buffer than 1,000 may be warranted depending on proximity to significant sources.