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Memo

Date: February 28, 2025

To: Patrick Kallas
David J. Powers & Associates, Inc.
San José, CA

From: Zachary Palm
Illingworth & Rodkin, Inc.

Subject: **1000 South De Anza Boulevard Project Land Use Changes I&R# 23-114**

The 1000 South De Anza Boulevard project located in San José, California is a residential project originally consisting of 99 dwelling units, 80 parking garage spaces, and an outdoor parking lot providing five additional parking spaces. Since completion of the original air quality analysis by *Illingworth & Rodkin, Inc.*,[1] the project has changed to include 120 dwelling units and 148 parking garage spaces within the same building footprint that was previously analyzed. No change is proposed to the outdoor parking lot. This is an increase of 21 dwelling units and 68 parking spaces and the amenity spaces have been reconfigured to make room for these increases. These changes would not affect the conclusions or impact findings of the original air quality analysis.

Construction Period Emissions

The original air quality analysis found that construction period emissions for all pollutants were well below the BAAQMD significance thresholds. Since the building footprint is expected to remain the same, no changes are expected to the construction equipment usage information utilized in the original analysis. Construction equipment usage is the largest driver of construction related emissions followed by architectural coating emissions from applications of paint, solvent, and other coatings to the building interior and exterior surfaces. However, since the additional units and parking spaces are at the expense of other finished spaces (amenity spaces), emissions from architectural coatings are expected to remain the same. As a result, the same conclusions for the construction period emissions in the original analysis can be expected with this project revision.

[1] Illingworth & Rodkin, Inc., *1000 South De Anza Boulevard Residential Project Air Quality and Greenhouse Gas Assessment*, November 16, 2023.

Operational Period Emissions

As shown in the original analysis, the project's operational period emissions for all pollutants are also well below the BAAQMD significance thresholds. However, the additional dwelling units would increase the number of trips generated by the project. Assuming the same trip generation rates and trip reduction percentages as the original analysis would apply, the net daily trips generated by the revised project would increase to 456 trips from 378 trips, or increase by approximately 20 percent. This would cause emissions from these trips to increase by a similar amount. Since the total building footprint will remain the same, a 20 percent increase in mobile emissions is not enough to cause total operational emissions to exceed the operational criteria air pollutant BAAQMD significance thresholds. Therefore, the same conclusions for the operational period emissions in the original analysis can be expected with this revised project.

Project Health Risks

The project's health risk analysis found that the cancer risk and annual $PM_{2.5}$ concentration would exceed the BAAQMD single-source significance thresholds, requiring the inclusion of *Mitigation Measure AQ-1* (basic and enhanced best management practices to control dust) and *Mitigation Measure AQ-2* (U.S. EPA Tier 4 Interim engine standards for construction equipment and electric or grid powered generators and welders). With the inclusion of these measures, both the cancer risk and annual $PM_{2.5}$ concentration were reduced to levels below the significance thresholds and the impact was found to be less-than-significant. No cumulative-source thresholds would be exceeded.

These mitigation measures would still be required with this project revision. To require additional mitigation, construction emissions from the revised project would have to increase from additional construction equipment usage and/or grading or earthwork, which is not proposed for this revised project. Therefore, no additional impact findings or mitigation measures are expected with this project revision.

1000 SOUTH DE ANZA BOULEVARD RESIDENTIAL PROJECT AIR QUALITY & GREENHOUSE GAS ASSESSMENT

San José, California

November 16, 2023

Prepared for:

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I&R Project#: 23-114

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 1000 South De Anza Boulevard in San José, California. Air quality impacts would be associated with demolition of the existing land uses, construction of the new building and infrastructure, and operation of the project. Air pollutant emissions were estimated 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 Quality Management District (BAAQMD).[1]

Project Description

The 0.72-acre project site is currently developed with a restaurant and an associated surface parking lot. The proposed project would demolish the existing uses and utilize the State's Builders Remedy policy to construct a 97-foot tall, seven story, 99-unit residential project with 8,714 square feet of common open space. It is proposed that 20 of the 99 units are included as below market rate affordable living spaces. The 99 dwelling units would total 83,370 square feet (sf) along with a 6,380-sf rooftop lounge. The 14,190-sf parking garage will have a total of 80 parking spaces in addition to a 9,310-sf parking lot with five parking spaces. Construction is expected to begin in January 2025 and will be completed by February 2026.

Setting

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

Air Pollutants of Concern

High ozone 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 concentrations. 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, reduced 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 (PM_{10}) and fine particulate matter where particles have a diameter of 2.5

[1] Bay Area Air Quality Management District, *2022 CEQA Guidelines*, April 2023.

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

Toxic Air Contaminants

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 three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015 and incorporated into BAAQMD's CEQA guidance.[2]

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 the multi-family residences to the north, east, and southwest. Additionally, there are infants and children located at the Primrose School of Cupertino daycare located on the southern border of the project site. There are also children located at the Eye Level of Cupertino Learning Center and the AppleSeed Montessori School north of the project site. There are more residences and schools within the project influence area, but the receptors chosen for this analysis constitute the locations where the worst impacts are expected. This project would introduce new sensitive receptors (i.e., residents) to the area.

[2] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide ambient air quality standards (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 vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[3]

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The 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 ambient air quality standards (CAAQS) and 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 approved a regulation to reduce emissions of DPM and NO_X from on-road heavy-duty diesel fueled vehicles.[4] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements have been phased in over the compliance period and depend on the model year of the vehicle.

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[3] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.
[4] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.

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

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*[5]. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the Federal on-road and non-road emission standards for new diesel engines, as well as adoption of regulations for ULSD fuel in California.

Bay Area Air Quality Management District (BAAQMD)

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

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the NAAQS and CAAQS. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.[6] 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

[5] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.
[6] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program.

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 BAAQMD 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 a BAAQMD CARE area.

Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.[7] The BAAQMD has identified several overburdened areas within its boundaries. However, the project site is not within an overburdened area as the Project site is scored at the 17th percentile on CalEnviroScreen.[8]

BAAQMD CEQA Air Quality Guidelines

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. In 2023, the BAAQMD revised the *California Environmental Quality Act (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 BAAQMD 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.[9] Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

[7] See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en.
[8] OEHAA, CalEnviroScreen 4.0 Maps https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[9] Bay Area Air Quality Management District, 2023. *2022 CEQA Guidelines*. April.

Table 1. BAAQMD CEQA Significance Thresholds

<table>
<tr><th rowspan="2">Criteria Air Pollutant</th><th colspan="2">Construction Thresholds</th><th colspan="2">Operational Thresholds</th></tr>
<tr><th colspan="2">Average Daily Emissions (lbs./day)</th><th>Average Daily Emissions (lbs./day)</th><th>Annual Average Emissions (tons/year)</th></tr>
<tr><td>ROG</td><td colspan="2">54</td><td>54</td><td>10</td></tr>
<tr><td>NO_X</td><td colspan="2">54</td><td>54</td><td>10</td></tr>
<tr><td>PM_{10}</td><td colspan="2">82 (Exhaust)</td><td>82</td><td>15</td></tr>
<tr><td>$PM_{2.5}$</td><td colspan="2">54 (Exhaust)</td><td>54</td><td>10</td></tr>
<tr><td>CO</td><td colspan="2">Not Applicable</td><td colspan="2">9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)</td></tr>
<tr><td>Fugitive Dust</td><td colspan="2">Construction Dust Ordinance or other Best Management Practices (BMPs)*</td><td colspan="2">Not Applicable</td></tr>
<tr><th>Health Risks and Hazards</th><th colspan="2">Single Sources/ Individual Project</th><th colspan="2">Combined Sources (Cumulative from all sources within 1000-foot zone of influence)</th></tr>
<tr><td>Excess Cancer Risk</td><td>>10 in a million</td><td rowspan="3">OR Compliance with Qualified Community Risk Reduction Plan</td><td>>100 in a million</td><td rowspan="3">OR Compliance with Qualified Community Risk Reduction Plan</td></tr>
<tr><td>Hazard Index</td><td>>1.0</td><td>>10.0</td></tr>
<tr><td>Incremental annual $PM_{2.5}$</td><td>>0.3 µg/m³</td><td>>0.8 µg/m³</td></tr>
<tr><th colspan="5">Greenhouse Gas Emissions</th></tr>
<tr><td>Land Use Projects – (Must Include A or B)</td><td colspan="4">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).</td></tr>
<tr><td colspan="5">Note: ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases.
* BAAQMD 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.</td></tr>
</table>

Source: Bay Area Air Quality Management District, 2022

The BAAQMD recommends all projects include a "basic" set of best management practices (BMPs) to manage fugitive dust and consider impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less than significant if BMPs are implemented.

Basic Best Management Practices: **Include measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. 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.

BAAQMD strongly encourages enhanced BMPs for construction sites near schools, residential areas, or other sensitive land uses. Enhanced measures include:

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.

- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

San José Envision 2040 General Plan

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

Applicable Goals – Air Pollutant Emission Reduction
Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction
MS-10.1 Assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

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

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

MS-10.5 In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

MS-10.7 Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.

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

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

Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

Applicable Goals – Toxic Air Contaminants

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

Applicable Policies – Toxic Air Contaminants

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

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

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

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

Actions – Toxic Air Contaminants

MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of TACs and $PM_{2.5}$, emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

MS-11.8 For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Applicable Goals – Construction Air Emissions

Goal MS-13 Minimize air pollutant emissions during demolition and construction activities.

Applicable Policies – Construction Air Emissions

MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Applicable Actions – Construction Air Emissions

MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

MS-13.5 Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

MS-13.6 Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

AIR QUALITY IMPACTS AND MITIGATION MEASURES

Impact AIR-1: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the NAAQS and the CAAQS. The area is also considered non-attainment for PM_{10} under the CAAQS, but not the NAAQS. The area has attained both State and Federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3, $PM_{2.5}$ and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. The O_3 precursor pollutant thresholds are for ROG and NOx, while PM_{10}, and $PM_{2.5}$ have specific thresholds. The thresholds apply to both construction period emissions and operational period emissions.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CalEEMod model output along with construction inputs are included in *Attachment 1*.

<u>CalEEMod Inputs</u>

Land Use Inputs

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

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Apartments Mid Rise	99	Dwelling Unit	89,750	
Unenclosed Parking with Elevator	80	Parking Spaces	14,190	0.72
Parking Lot	5	Parking Spaces	-	

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 provided by the project applicant (included in *Attachment 1)*. The construction schedules assumed that the earliest possible start date would be January 2025 and the project would be built out over a period of approximately 14 months or 303 construction workdays. The earliest year of operation was assumed to be 2026.

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

Summary of Computed Construction Emissions

Average daily construction emissions were estimated for the total duration of the project (303 days). Table 3 shows the unmitigated average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted unmitigated average project construction emissions would not exceed the BAAQMD significance thresholds.

Table 3. Construction Period Emissions - Unmitigated

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2025+2026*	0.85	1.78	0.07	0.07
Average Daily Construction Emissions Per Year (pounds/day)				
2025+2026* (303 construction workdays)	5.58	11.75	0.47	0.43
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

*Includes 2 months of 2026.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. The BAAQMD recommends all projects include a "basic" set of best management practices (BMPs) to manage fugitive dust and considers impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less-than-significant if BMPs are implemented. *Mitigation Measure AQ-1 would implement BAAQMD-recommended basic and enhanced BMPs.*

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

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures 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.

For this analysis, both the basic and enhanced BMPs are assumed to be required as unmitigated fugitive dust emissions from project construction sources were found to cause localized health risk impacts (shown later in Table 5).

Enhanced measures include:

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize the amount of excavated material or waste materials stored at the site.
- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

Effectiveness of Mitigation Measure AQ-1

The measures above are consistent with BAAQMD-recommended basic and enhanced BMPs for reducing fugitive dust contained in the BAAQMD CEQA Air Quality Guidelines.

Operational Period Emissions

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

<u>CalEEMod Inputs</u>

Land Uses

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

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of full operation would be 2026 if construction begins in 2025. Emissions associated with build-out later than 2026 would be lower.

Traffic Information

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model.[10] The project would produce approximately 449 daily trips. When accounting for the *Location-Based Reduction and VMT-Based Reduction,* the project would produce 378 net daily trips. The daily trip generation was calculated using ITE trip generation rates, the size of the project land uses, and the adjusted total automobile trips after reductions. 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 CalEEMod were used.

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. An emission factor of 178 pounds of CO_2 per megawatt of electricity produced was entered into CalEEMod, which is based on San José Clean Energy's (SJCE) 2020 emissions rate.[11] It should be noted that per Climate Smart San José and San José's Greenhouse Gas Reduction Strategy, SJCE's goal is to provide 100-percent carbon-free electricity prior to 2030.[12]

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[10] Email Correspondence from Patrick Kallas, Project Manager, David J. Powers & Associates, Inc., October 25, 2023, *1000 De Anza – Trip Generation and Volume Sheet 10-25-23.*
[11] San José Clean Energy Website, Standard GreenSource service. Web: https://sanjosecleanenergy.org/commercial-rates/
[12] City of San José, 2020. "2030 Greenhouse Gas Reduction Strategy", August. Web: https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000

CalEEMod includes the 2019 Title 24 Building Standards. However, the City of San José passed an ordinance in December 2020 that prohibits the use of natural gas infrastructure in new residential, office, and most retail-type buildings.[13] This ordinance applies to any new construction starting August 1, 2021. Natural gas use for the 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 and water use were applied to the project. Wastewater treatment was estimated to be 100% aerobic conditions to represent City wastewater treatment plant conditions. The project site would not send wastewater to on-site septic tanks or facultative lagoons.

Summary of Computed Operational Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimated assuming 365 days of operation. Table 4 shows unmitigated net average daily operational emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. Operational period emissions would not exceed the BAAQMD significance thresholds.

Table 4. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2026 Annual Project Operational Emissions (*tons/year*)	0.66	0.16	0.34	0.09
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2026 Daily Project Operational Emissions (*pounds/day*)[1]	3.63	0.87	1.87	0.48
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*
Notes: [1]Assumes 365-day operation.				

Impact AIR-2: Expose sensitive receptors to substantial pollutant concentrations?

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

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would increase traffic consisting of mostly light-duty vehicles, which would produce TAC and air pollutant emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and

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

localized air pollutants in the vicinity of the project. The impact of existing sources of TACs was assessed in terms of the cumulative risk which includes the project contribution; as well as the risk on the new sensitive receptors introduced by the project.

Health Risk Methodology for Construction and Operation

Health risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations, and by computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,[14] with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

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

The methodology for computing health risks impacts is contained in Appendix E of the BAAQMD 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.

<u>Modeled Sensitive Receptors</u>

Receptors for this assessment included locations where sensitive populations closest to the project would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences surrounding the site, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions. Health risks were also computed for infant and child receptors at the nearby daycares and preschools. 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., DMP), 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 $PM_{2.5}$.[15] This assessment included dispersion modeling to predict the offsite

[14]BAAQMD, Appendix E of the 2022 *BAAQMD CEQA Guidelines*, April 2023
[15] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be estimated.

Construction Emissions

The CalEEMod model provided total uncontrolled annual PM_{10} 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 0.07 tons (140 pounds) and fugitive dust emissions ($PM_{2.5}$) to be 0.02 tons (37 pounds) from all construction stages. The on-road emissions are a result of haul truck travel during grading activities, worker travel, and vendor deliveries during construction. A trip length of one-half 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 DPM and $PM_{2.5}$ concentrations at sensitive receptors (i.e., residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[16] 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 351 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 for the area source. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site.

[16] BAAQMD, Appendix E of the 2022 *BAAQMD CEQA Guidelines*, April 2023

Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Figure 1 shows the project construction site and receptors.

AERMOD Inputs and Meteorological Data

The modeling used a five-year meteorological data set (2013-2017) from the San José Airport prepared for use with the AERMOD model by the BAAQMD. Construction emissions were modeled as occurring daily between 7:00 a.m. to 5:00 p.m., according to the construction schedule provided by the project applicant. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2025 - 2026 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing height on the first and second floors of nearby single- and multi-family residences.[17] A receptor height of 3 feet (1 meter) was used to represent the breathing height of infants and children at the nearby daycares and preschools.

Summary of Construction Health Risk Impacts

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

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 $\mu g/m^3$.

The modeled maximum annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the construction MEI was located at a receptor on the first floor (3 feet above the ground) of the Primrose School of Cupertino building south of the project site. The Primrose School of Cupertino accepts toddlers as their youngest age group. It is assumed these children are approximately 12 months of age and older. The school operates Monday through Friday from 7:30 a.m. until 6:00 p.m. which overlaps with nine and a half hours of the construction schedule's ten-hours per day length. The location of the MEI and nearby sensitive receptors are shown in Figure 1. Table 5 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities. *Attachment 2* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

[17] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

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 449 daily trips or 378 net daily trips[18] with a majority of the trips being from light-duty gasoline-powered vehicles (i.e., passenger cars). The project is not anticipated to generate large amounts of truck trips that would involve diesel vehicles. Per BAAQMD recommended risks and methodology, a road with less than 10,000 total vehicle per day is considered a low-impact source of TACs and do not need to be considered in the CEQA analysis.[19] In addition, projects with the potential to cause or contribute to increased cancer risk from traffic include those that have high numbers of diesel-powered on road trucks or use off-road diesel equipment on site, such as a distribution center, a quarry, or a manufacturing facility, may potentially expose existing or future planned receptors to substantial cancer risk levels and/or health hazards. This is not a project of concern for mobile sources. Emissions from project traffic are considered negligible and not included within this analysis.

[18] Email Correspondence from Patrick Kallas, Project Manager, David J. Powers & Associates, Inc., October 25, 2023, *1000 De Anza – Trip Generation and Volume Sheet 10-25-23.*.

[19] Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

Figure 1. Locations of Project Construction Site, Off-Site Sensitive Receptors, and Maximum TAC Impact Locations (MEIs)

<u>Summary of Project-Related Health Risks at the Off-Site Project MEI</u>

For this project, the sensitive receptors identified in Figure 1 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to emissions from 14 months of construction and 28 plus years of operational emissions. The annual $PM_{2.5}$ concentration and HI values are based on an annual maximum risk for the entirety of the project. As shown in Table 5, the unmitigated maximum cancer risks and annual $PM_{2.5}$ concentration from construction activities at the MEI location would exceed the BAAQMD single-source significance thresholds. However, with the incorporation of the *Mitigation Measure AQ-1 and AQ-2*, the mitigated risk and hazard values would reduce emissions such that cancer risk and annual $PM_{2.5}$ concentration caused by construction would no longer exceed the BAAQMD single-source significance thresholds. The unmitigated HI at the MEI does not exceed its respective BAAQMD single-source significance thresholds.

Table 5. Construction and Operation Risk Impacts at the Off-Site Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	**72.00 (infant)**	**0.47**	0.03
	Mitigated	8.76 (infant)	0.24	<0.01
	BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated	*No*	*No*	*No*

***Mitigation Measure AQ-1*:** **Implement BAAQMD-Recommended Measures to Control Particulate Matter Emissions during Construction.**

See description of Mitigation Measure AQ-1 provided above.

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

Implement a feasible plan to reduce diesel particulate matter emissions by 87 percent such that increased cancer risk from construction would be reduced below TAC significance levels as follows:

1. All diesel-powered construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for PM (PM_{10} and $PM_{2.5}$), if feasible, otherwise,

    a. If use of Tier 4 equipment is not available, use alternative equipment that meets U.S. EPA emission standards for Tier 4 interim standards that altogether achieve a 87 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).

    b. Installation of electric power lines during early construction phases to use electric generators and welders.

2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 87 percent or greater. Elements of the plan could include a combination of some of the following measures:
    - Implementation of No. 1 above to use Tier 4 or alternatively fueled equipment,
    - Installation of electric power lines during early construction phases to avoid use of diesel generators, welders, and compressors,
    - Use of electrically-powered equipment,
    - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
    - Change in construction build-out plans to lengthen phases, and

- Implementation of different building techniques that result in less diesel equipment usage.

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

Effectiveness of Mitigation Measure AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with both measures assuming that all equipment met U.S. EPA Tier 4 Interim engine standards, electric or grid powered generators and welders, and BAAQMD basic and enhanced BMPs for construction were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 88 percent to 8.76 per million and the $PM_{2.5}$ concentration would be reduced by 49 percent to 0.24 $\mu g/m^3$. As a result, the project's construction risks and hazards would be reduced below the BAAQMD single-source thresholds.

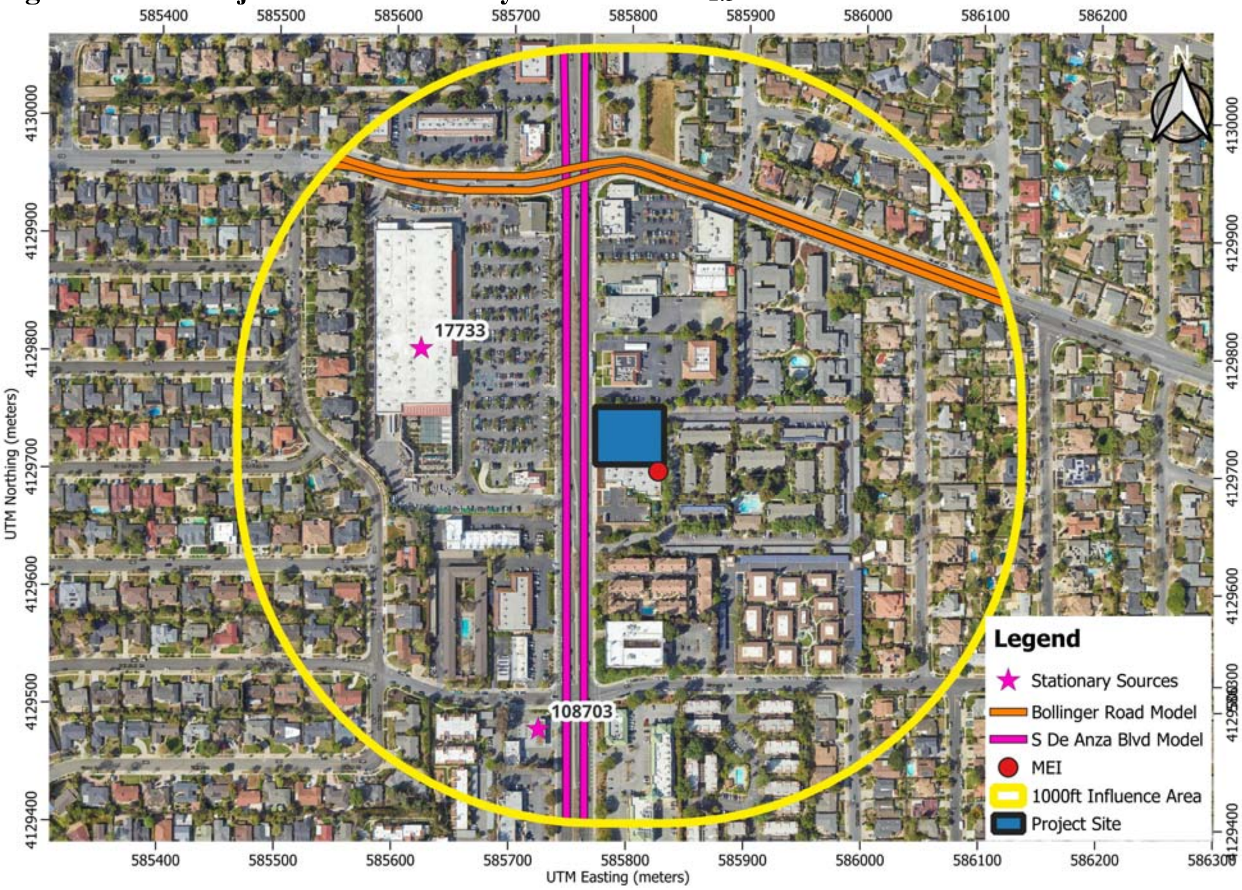
Cumulative Health Risks of all TAC Sources at the Off-Site Project MEI

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

A review of the project area using traffic data collected by the City of San José indicates traffic on Bollinger Road and South De Anza Boulevard exceeds 10,000 vehicles per day. [20] Other nearby streets would have less than 10,000 vehicles per day and are considered negligible sources of TACs. A review of BAAQMD's geographic information systems (GIS) screening maps identified the existing health risks at the MEI. The screening tool identified two existing stationary sources of TACs with the potential to affect the project MEI. Figure 2 shows the location of the sources affecting the MEI. Health risk impacts from these sources upon the MEIs are reported in Table 6. Details of the modeling and health risk calculations are included in *Attachment 3.*

[20] City of San José. *Traffic Volume*. Web: https://csj.maps.arcgis.com/apps/webappviewer/index.html?id=067fbd3db8dd44f8a60f48148331b3d7

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



<u>Local Roadways – Bollinger Road and South De Anza Boulevard</u>

A refined analysis of potential health impacts from vehicle traffic on Bollinger Road and South De Anza Boulevard was conducted since the roadway was estimated to have average daily traffic (ADT) exceeding 10,000 vehicles. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on the roadway near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks are then computed based on the modeled exposures.

Emissions Rates

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on South De Anza Boulevard and Bollinger Road using the Caltrans version of the CARB EMFAC2021 emissions model, known as CT-EMFAC2021. CT-EMFAC2021 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear from re-entrained roadway dust were included in these emissions. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2021 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), traffic mix assigned by CT-EMFAC2021 for the county, truck percentage for non-state highways in Santa Clara County (3.51 percent),[21] year of analysis (2025 construction start year), and season (annual).

To estimate TAC and $PM_{2.5}$ emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEI, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2025 (construction start year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2021. Year 2025 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The average daily traffic (ADT) for both roadways was based on the City of San Jose's traffic counts web page.[22] The calculated ADT on South De Anza Boulevard was 37,398 vehicles and 18,192 vehicles on Bollinger Road. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[23] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the roadway. For all hours of the day an average speed of 40 mph on South De Anza Boulevard and 35 mph on Bollinger Road was assumed for all vehicles based on posted speed limit signs.

Hourly emissions rates were developed for DPM, organic TACs, and $PM_{2.5}$ along the applicable segments of each roadway within 1,000 feet of the project site. AERMOD was used to estimate the TAC and $PM_{2.5}$ concentrations at the MEI locations. Maximum increased lifetime cancer risks and maximum annual $PM_{2.5}$ concentrations for the construction MEI receptor were then computed using modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.[24] TAC and $PM_{2.5}$ emissions from traffic Bollinger Road and South De Anza Boulevard within 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of area sources along a line (line area sources); with line segments used for travel on the roadways in both opposing directions. The same meteorological data and off-site sensitive receptors used in the previous construction site dispersion modeling scenario were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations.

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[21] Bay Area Air Quality Management District, 2023, Appendix E of the *BAAQMD CEQA Guidance.* April.
[22] URL: https://csj.maps.arcgis.com/apps/webappviewer/index.html?id=067fbd3db8dd44f8a60f48148331b3d7
[23] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2021 does not include Burden type output with hour-by-hour traffic volume information.
[24] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

Annual TAC and $PM_{2.5}$ concentrations using 2025 emissions from traffic on Bollinger Road and South De Anza Boulevard were calculated using the model. Concentrations were calculated at the construction MEIs with receptor heights of 3 feet (1 meter) were used to represent the breathing heights on the first floor of the preschool.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, $PM_{2.5}$ concentration, and HI impacts from Bollinger Road and South De Anza Boulevard on the off-site MEI are shown in Table 6. Figure 2 shows the roadway links modeled and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and cancer risk calculations for the receptors with the maximum cancer risk from traffic on Bollinger Road and South De Anza Boulevard are provided in *Attachment 3.*

<u>BAAQMD Permitted Stationary Sources</u>

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2021* GIS map website.[25] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for OEHHA guidance. Two sources were identified using this tool, one diesel generator and one gasoline dispensing facility. The BAAQMD GIS website provided screening risks and hazards for the diesel generator. A stationary source information request was submitted to BAAQMD in order to estimate health risk impacts from the gasoline dispensing facility.[26]

The screening risk and hazard levels provided by BAAQMD for the stationary sources were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines and Gasoline Dispensing Facilities.* Health risk impacts from the stationary source upon the MEIs are reported in Table 6.

<u>Summary of Cumulative Risks at the Project MEI</u>

Table 6 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by project construction (i.e., the MEI). The project's unmitigated construction maximum cancer risk and annual $PM_{2.5}$ concentration exceed the BAAQMD single-source thresholds. With the implementation of *Mitigation Measure AQ-1 and AQ-2*, the project's cancer risk and annual $PM_{2.5}$ concentration would be lowered to a level below the single-source threshold and also do not exceed the cumulative-source thresholds. The HI, unmitigated and mitigated, do not exceed the single-source or cumulative-source thresholds.

[25] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3
[26] Correspondence with BAAQMD CEQA, August 1, 2023.

Table 6. Cumulative Health Risk Impacts at the Project MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts				
Project Construction	Unmitigated Mitigated	**72.00 (infant)** 8.76 (infant)	**0.47** 0.24	0.03 <0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated Mitigated	***Yes*** *No*	***Yes*** *No*	*No* *No*
Cumulative Impacts				
Bollinger Road, ADT 18,192		0.16	0.01	<0.01
S. De Anza Boulevard, ADT 37,398		2.29	0.18	<0.01
The Home Depot #6635 (Facility ID # 17733, Generator), MEI at 1,000 feet		0.36	<0.01	<0.01
Rotten Robbie #07 (Facility # 108703, Gas Dispensing Facility), MEI at 760 feet		0.83	-	0.06
Combined Sources	Unmitigated Mitigated	75.64 12.40	<0.67 <0.44	<0.12 <0.10
	BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	Unmitigated Mitigated	*No* *No*	*No* *No*	*No* *No*

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) introduced by the project. The same TAC sources identified above were used in this assessment.[27] Figure 3 shows the on-site sensitive receptors in relation to the nearby TAC sources. Results are listed in Table 7. *Attachment 3* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

<u>Local Roadways – Bollinger Road and South De Anza Boulevard</u>

The roadway analysis for the new project residents was conducted in the same manner as described above for the off-site MEI. However, the year 2027 (operational year) emission factors were conservatively assumed as being representative of future conditions, instead of 2025 (construction year). An analysis based on 2027 resulted in an increased ADT on South De Anza Boulevard of 38,097 vehicles and 18,495 vehicles on Bollinger Road.

[27] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself "exacerbates" such impacts.

On-site receptors were placed throughout the project site with a spacing of 7 meters (23 feet). Roadway impacts were modeled at receptor heights of 15 feet (4.5 meters) and 25 feet (7.6 meters) representing sensitive receptors on the second and third floors of the proposed building since no residences are proposed on the first floor. The portion of the roadways included in the modeling is 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 infants and adults were assumed to be in the new apartments for 24 hours per day for 350 days per year. The highest impacts from the combined roadways occurred at a receptor on the second floor in the northwestern corner of the multi-family building. Cancer risks associated with the roadways are greatest closest to the roadways and decrease with distance from the roads. The roadway impacts at the project site are shown in Table 7. Details of the 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 construction MEI. Table 7 includes the health risk assessment results for the stationary sources.

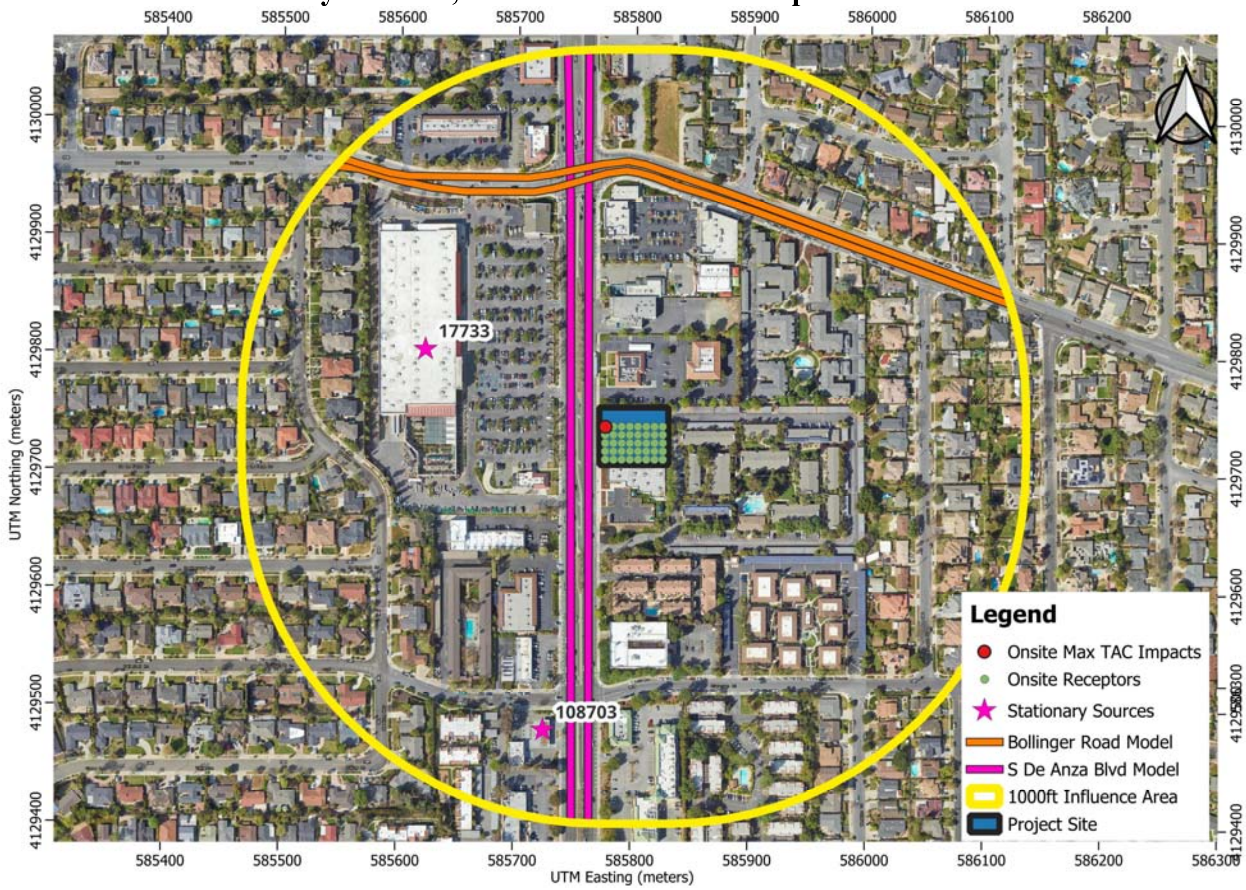
Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the existing and TAC sources upon the project site are reported in Table 7. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, none of the sources exceed the single-source or cumulative-source thresholds.

Table 7. Impacts from Combined Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Bollinger Road, ADT 38,097	0.17	0.01	<0.01
S. De Anza Boulevard, ADT 18,495	3.23	0.27	<0.01
The Home Depot #6635 (Facility ID # 17733, Generator), Project Site at 415 feet	0.63	<0.01	<0.01
Rotten Robbie #07 (Facility # 108703, Gas Dispensing Facility), Project Site at 730 feet	0.83	-	0.06
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold?	*No*	*No*	*No*
Cumulative Total	4.86	<0.29	<0.09
BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	*No*	*No*	*No*

Figure 3. Locations of Project Site, On-Site Residential Receptors, Roadway Models, Stationary 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 (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

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

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

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

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2022, total gross nationwide GHG emissions were 5,215.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[28] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission

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

inventory on an annual basis where the latest inventory includes 2000 through 2020 emissions.[29] In 2020, GHG emissions from statewide emitting activities were 369.2 MMT CO_2e. The 2020 emissions have decreased by 25 percent since peak levels in 2004 and are 35.3 MMT CO_2e lower than 2019 emissions level and almost 62 MMT CO_2e below the State's 2020 GHG limit of 431 MMT CO_2e. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT CO_2e per person to 9.3 MT CO_2e per person in 2020.

Recent Regulatory Actions for GHG Emissions

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

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

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

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 85 percent below 1990 levels.

The first Scoping Plan for AB 32 was adopted by CARB in December 2008. Its most recent update was completed in December of 2022[30]. It contains the State's main strategies to achieve carbon neutrality by 2045. This plan extends and expands upon the earlier versions with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It also takes the step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Measures to achieve carbon neutrality include rapidly moving to zero emission vehicles (ZEV), removing natural gas as an option for space conditioning, increasing the number of solar arrays and wind turbines, and scaling up renewable hydrogen for hard-to-electrify end uses.

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

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities.

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

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

The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g., ABAG and MTC) to align their regional transportation, housing, and land use plans to reduce VMT and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

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

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

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a GHG emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*.[31] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB has drafted a 2022 Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 draft plan:

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

[31] 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

- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.

The Scoping Plan was updated in 2022 and lays out how the state can get to carbon neutrality by 2045 or earlier. It is the first Scoping Plan that adds carbon neutrality as a science-based guide and touchstone beyond statutorily established emission reduction targets.[32]

The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The 2022 Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and to not only obtain the statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan, CARB recommends:

- VMT per capita reduced 12% below 2019 levels by 2030 and 22% below 2019 levels by 2045.
- 100% of Light-duty vehicle sales are zero emissions vehicles (ZEV) by 2035.
- 100% of medium duty/heavy duty vehicle sales are ZEV by 2040.
- 100% of passenger and other locomotive sales are ZEV by 2030.
- 100% of line haul locomotive sales are ZEV by 2035.
- All electric appliances in new residential and commercial building beginning 2026 (residential) and 2029 (commercial).
- 80% of residential appliance sales are electric by 2030 and 100% of residential appliance sales are electric by 2035.
- 80% of commercial appliance sales are electric by 2030 and 100% of commercial appliance sales are electric by 2045.

SB 743 Transportation Impacts

Senate Bill 743 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 transportation[33]. A VMT-per-capita metric was adopted into the CEQA Guidelines Section 15064.3 in November 2017. Given current baseline per-capita VMT levels computed by CARB in the 2030 Scoping Plan of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 climate goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per capita VMT as an appropriate threshold of significance for evaluating transportation impacts.

[32] https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents
[33] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

Executive Order B-55-18 – Carbon Neutrality

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

Senate Bill 100 – Current Renewable Portfolio Standards

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

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

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[34] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2022 California Building Standard Code) was effective as of January 1, 2023.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2022 Energy Code) replaced the 2019 Energy Code as of January 1,2023. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[35]

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The CalGreen 2022 standards require deployment of additional EV chargers in various building

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[34] 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.

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

types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. The 2022 CALGreen standards include requirements for both EV readiness, installation of EV chargers, and include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions. Providing EV charging infrastructure that meets current CALGreen requirements will not be sufficient to power the anticipated more extensive level of EV penetration in the future that is needed to meet SB 30 climate goals.

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.[36] 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.

Advanced Clean Cars

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

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

<u>City of San José 2030 Greenhouse Gas Reduction Strategy</u>

The City of San José 2030 Greenhouse Gas Reduction Strategy[37] (2030 GHGRS) is a plan to reduce GHG emissions and address climate change. Adopted in August 2020, the 2030 GHGRS contains goals and strategies to reduce greenhouse gas emissions by 40 percent below 1990 levels by 2030 and to meet the long-term target of carbon neutrality by 2045, in accordance with the AB 32 "Climate Change Scoping Plan" and SB 32 "The Global Warming Solutions Act of 2006". The 2030 GHGRS serves as San José's qualified climate action plan (CAP). The Development Compliance Checklist serves to apply the relevant General Plan and 2030 GHGRS policies through a streamlined review process for proposed new development projects.

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[36] California Energy Commission. 2021. F*inal Commission Report: California Building Decarbonization Assessment. Publication Number CEC-400-2021-006-CMF*.August

[37] City of San José , *Greenhouse Gas Reduction Strategy*, August 2020. Web: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/environmental-review/greenhouse-gas-reduction-strategy. Accessed on 08/07/2023.

The qualified CAP Update includes a Consistency Checklist that new projects must comply with. This checklist is included as *Attachment 4*.

BAAQMD GHG Significance Thresholds

On April 20, 2022, BAAQMD adopted new thresholds of significance for operational GHG emissions from land use projects for projects beginning the CEQA process. The current 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 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).

New land use projects are required to meet either section A or B from the above list, not both, to be considered less than significant.

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.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the construction and operational period emissions. CalEEMod output is included in *Attachment 1*.

Construction GHG Emissions

GHG emissions associated with construction were computed at 447 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though the California Office of Planning and Research (OPR) recommends quantifying emissions and disclosing that GHG emissions would occur during construction, even in cases where BAAQMD does not. BAAQMD also encourages the incorporation of best management practices 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 proposed project. As shown in Table 7 for informational purposes, net annual GHG emissions resulting from operation of the proposed project are predicted to be 406 MT of CO_2e in 2026.

Table 7. Annual Project GHG Emissions (CO_2e) in Metric Tons

Source Category	Proposed Project in 2026
Mobile	326
Area	1
Energy Consumption	52
Water Usage	14
Solid Waste Generation	23
Total (MT CO_{2e}/year)	406

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 BAAQMD (Threshold A). Threshold B is being applied to the analysis of this project as the City of San José has a qualified CAP that includes a Development Compliance Checklist. The CAP Development Compliance Checklist is included in *Attachment 4*. 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 – The project will be all electric.
2. Avoid wasteful or inefficient use of electricity,
   - Conforms – The project 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 – a specific number of EV parking spaces was not provided at the time of this analysis. However, the applicant has stated that EV charging infrastructure will be provided in enough parking spots to meet the City's and CALGreen Tier 2 requirements[38].

4. Reduce VMT per service population by 15 percent over regional average.
    - Conforms – Based on information provided by the traffic consultant, the VMT per service population of the project is 12.60[39]. This is an 18% reduction over the regional average of 15.3.

It is anticipated that the project will be consistent with the City of San José's CAP Development Compliance Checklist and the project conforms with four out of the four BAAQMD GHG significance thresholds. As a result, the project would have less-than-significant GHG emissions.

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 San José has a CAP and enforces its building codes, which aim to reduce GHG emissions. Therefore, if individual projects conform to City building Codes, they will conform with the CAP and would not conflict with local plans, policies, or regulations applicable to GHG emissions. The proposed project would be constructed in conformance with at minimum the 2022 CalGreen and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficiency standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions.

[38] File: *Information Request 10.2023.docx*
[39] Hexagon Transportation Consultants, Inc. File: *1000 De Anza – Trip Generation and Volume Sheet 10-25-23.xlsx*

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. AERMOD dispersion modeling files for these assessments, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 3 includes the cumulative health risk calculations, modeling results, and health risk calculations from sources affecting the MEI.

Attachment 4 includes the City of San José's CAP Development Compliance Checklist.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: **1000 South De Anza Blvd**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	**99** Dwelling Units	**0.72** total project acres disturbed		
	83,370 s.f. residential		89,750	**Pile Driving? N**
	0 s.f. retail			
	0 s.f. office/commercial			**Project include on-site GENERATOR OR FIRE PUMP during project OPERATION (not construction)? Y/N? N**
	6,380 s.f. other, specify: Rooftop Lounge			**IF YES (if BOTH separate values) -->**
	14,190 s.f. parking garage	**80** spaces		**Kilowatts/Horsepower: _________**
	9,310 s.f. parking lot	**5** spaces		**Fuel Type: ____________**
Construction Days (i.e, M-F)	**Monday** to	**Friday**		**Location in project (Plans Desired if Available): N/A**
Construction Hours	**7 am** to	**5 pm**		

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**1/1/2025**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**1/29/2025**					
1	Concrete/Industrial Saws	81	0.73	8	20	8	9461	**Demolition Volume**
3	Excavators	158	0.38	8	20	8	28819	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	20	8	31616	(*or* total tons to be hauled)
1	Tractors/Loaders/Backhoes	97	0.37	8	20	8	5742	2,658 square feet *or*
								_?_ Hauling volume (tons)
								Any pavement demolished and hauled? 28,692 SF
	Site Preparation	**Start Date:**	**1/30/2025**	**Total phase:**	**5**			
		End Date:	**2/6/2025**					
1	Graders	187	0.41	8	5	8	3067	
3	Rubber Tired Dozers	247	0.4	8	5	8	11856	
4	Tractors/Loaders/Backhoes	97	0.37	8	5	8	5742	
	Grading / Excavation	**Start Date:**	**2/7/2025**	**Total phase:**	**8**			
		End Date:	**2/18/2025**					**Soil Hauling Volume**
1	Excavators	158	0.38	8	8	8	3843	Export volume = 468 cubic yards
1	Graders	187	0.41	8	8	8	4907	Import volume = 0 cubic yards
1	Rubber Tired Dozers	247	0.4	8	8	8	6323	
	Concrete/Industrial Saws	81	0.73			0	0	
3	Tractors/Loaders/Backhoes	97	0.37	8	8	8	6891	
	Trenching/Foundation	**Start Date:**	**2/7/2025**	**Total phase:**	**8**			
		End Date:	**2/18/2025**					
1	Tractor/Loader/Backhoe	97	0.37	8	8	8	2297	
1	Excavators	158	0.38	8	8	8	3843	
	Building - Exterior	**Start Date:**	**2/19/2025**	**Total phase:**	**230**			**Cement Trucks? _Est. 67_ Total Round-Trips**
		End Date:	**1/6/2026**					
1	Cranes	231	0.29	7	230	7	107854	diesel
3	Forklifts	89	0.2	8	230	8	98256	diesel
1	Generator Sets	84	0.74	8	230	8	114374	Or temporary line power? (Y/N) Y
3	Tractors/Loaders/Backhoes	97	0.37	7	230	7	173349	
1	Welders	46	0.45	8	230	8	38088	
Building - Interior/Architectural Coating		**Start Date:**	**1/7/2026**	**Total phase:**	**18**			
		End Date:	**2/1/2026**					
1	Air Compressors	78	0.48	6	18	6	4044	
	Aerial Lift	62	0.31			0	0	
	Paving	**Start Date:**	**2/2/2026**	**Total phase:**	**18**			
		Start Date:	**2/27/2026**					
2	Cement and Mortar Mixers	9	0.56	6	18	6	1089	
1	Pavers	130	0.42	8	18	8	7862	**Asphalt 181 cubic yards**
2	Paving Equipment	132	0.36	6	18	6	10264	
2	Rollers	80	0.38	6	18	6	6566	
1	Tractors/Loaders/Backhoes	97	0.37	8	18	8	5168	
	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

Complete one sheet for each project component

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

Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2025-2026	0.85	1.78	0.07	0.07	0.04	446.97	
	Total Construction Emissions						
Tons	0.85	1.78	0.07	0.07		446.97	
Pounds/Workdays	*Average Daily Emissions*					Workdays	
2025-2026	5.58	11.75	0.47	0.43			**303**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			
	Total Construction Emissions						
Pounds	5.58	11.75	0.47	0.43		0.00	
Average	5.58	11.75	0.47	0.43		0.00	303.00
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	0.66	0.16	0.34	0.09			
	Net Annual Operational Emissions						
Tons/year	0.66	0.16	0.34	0.09			
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**			
	Average Daily Emissions						
Pounds Per Day	3.63	0.87	1.87	0.48			
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Mobile	326.27			
Area	1.44			
Energy	51.70			
Water	4.10			
Waste	22.85			
Refrig.	0.11			
TOTAL	406.47	0.00	0.00	0.00
Net GHG Emissions		406.47		0.00

Traffic Consultant Trip Gen						CalEEMod Default		
Land Use		Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
Apartments Mid Rise	DU	99	449	378	***3.82***	5.44	4.91	4.09
Location-Based VMT	13%		*-58*			*Rev*	***3.45***	***2.87***
VMT-Based Reduction	3.45%		*-13*					

1000 De Anza - ITE Vehicle Trip Generation Estimates

Land Use	Reduction %	Place Type	VMT Existing	VMT Project	Size	Rate	Trip	Rate	Split In	Split Out	Trip In	Trip Out	Trip Total	Rate	Split In	Split Out	Trip In	Trip Out	Trip Total
#221 - Multifamily Housing (Mid-Rise)					**99** Dwelling Units	4.540	449	0.370	23%	77%	9	28	37	0.390	61%	39%	24	15	39
Location-Based Reduction [1]	*13%*	Urban Low-Transit					*-58*				*-1*	*-4*	*-5*				*-3*	*-2*	*-5*
VMT-Based Reduction [2]	*3.45%*		13.05	12.60			*-13*				*0*	*-1*	*-1*				*-1*	*0*	*-1*
Project Trips After Reductions							**378**				**8**	**23**	**31**				**20**	**13**	**33**

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

[1] The place type for the project site is obtained from the City of San Jose VMT Evaluation Tool (April 2023). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2023). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

[2] Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-capita is equivalent to one percent reduction in peak-hour vehicle trips.

1000 South De Anza Blvd, San Jose T4i BMPs 2026 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	1000 South De Anza Blvd, San Jose T4i BMPs 2026
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	25.6
Location	1000 S De Anza Blvd, San Jose, CA 95129, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1772
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Mid Rise	99.0	Dwelling Unit	0.72	89,750	0.00	—	296	—
Unenclosed Parking with Elevator	80.0	Space	0.00	14,190	0.00	—	—	—
Parking Lot	5.00	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

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.	1.40	11.1	0.44	0.74	1.18	0.40	0.18	0.58	3,487
Mit.	0.69	10.2	0.12	0.74	0.87	0.12	0.18	0.30	3,487
% Reduced	51%	8%	71%	—	27%	71%	—	49%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	70.4	34.8	1.54	8.04	9.57	1.41	4.00	5.41	6,045
Mit.	70.3	17.1	0.21	8.04	8.15	0.20	4.00	4.11	6,045
% Reduced	< 0.5%	51%	86%	—	15%	86%	—	24%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.52	9.26	0.37	0.67	1.04	0.34	0.21	0.55	2,561
Mit.	3.49	7.70	0.09	0.67	0.76	0.09	0.21	0.30	2,561
% Reduced	1%	17%	74%	—	26%	74%	—	46%	—

Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.64	1.69	0.07	0.12	0.19	0.06	0.04	0.10	424
Mit.	0.64	1.40	0.02	0.12	0.14	0.02	0.04	0.05	424
% Reduced	1%	17%	74%	—	26%	74%	—	46%	—

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)	—	—	—	—	—	—	—	—	—
2025	1.40	11.1	0.44	0.74	1.18	0.40	0.18	0.58	3,487
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	3.74	34.8	1.54	8.04	9.57	1.41	4.00	5.41	6,045
2026	70.4	10.6	0.38	0.74	1.12	0.35	0.18	0.53	3,416
Average Daily	—	—	—	—	—	—	—	—	—
2025	1.11	9.26	0.37	0.67	1.04	0.34	0.21	0.55	2,561
2026	3.52	0.49	0.02	0.02	0.04	0.02	0.01	0.02	138
Annual	—	—	—	—	—	—	—	—	—
2025	0.20	1.69	0.07	0.12	0.19	0.06	0.04	0.10	424
2026	0.64	0.09	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	22.9

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)	—	—	—	—	—	—	—	—	—
2025	0.69	10.2	0.12	0.74	0.87	0.12	0.18	0.30	3,487

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.79	17.1	0.21	8.04	8.15	0.20	4.00	4.11	6,045
2026	70.3	10.2	0.12	0.74	0.86	0.12	0.18	0.30	3,416
Average Daily	—	—	—	—	—	—	—	—	—
2025	0.47	7.70	0.09	0.67	0.76	0.09	0.21	0.30	2,561
2026	3.49	0.50	0.01	0.02	0.03	0.01	0.01	0.01	138
Annual	—	—	—	—	—	—	—	—	—
2025	0.09	1.40	0.02	0.12	0.14	0.02	0.04	0.05	424
2026	0.64	0.09	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	22.9

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.	4.05	0.86	0.02	1.98	2.00	0.02	0.50	0.52	2,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.40	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,529
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.63	0.87	0.01	1.85	1.87	0.01	0.47	0.48	2,455
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.66	0.16	< 0.005	0.34	0.34	< 0.005	0.09	0.09	406

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	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Area	2.87	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	4.05	0.86	0.02	1.98	2.00	0.02	0.50	0.52	2,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054
Area	2.27	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	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	3.40	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,529
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	1.06	0.84	0.01	1.85	1.87	0.01	0.47	0.48	1,971
Area	2.56	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.69
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	3.63	0.87	0.01	1.85	1.87	0.01	0.47	0.48	2,455
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326
Area	0.47	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44

Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	51.7
Water	—	—	—	—	—	—	—	—	4.10
Waste	—	—	—	—	—	—	—	—	22.9
Refrig.	—	—	—	—	—	—	—	—	0.11
Total	0.66	0.16	< 0.005	0.34	0.34	< 0.005	0.09	0.09	406

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	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Area	2.87	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	4.05	0.86	0.02	1.98	2.00	0.02	0.50	0.52	2,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054
Area	2.27	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	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	3.40	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,529
Average Daily	—	—	—	—	—	—	—	—	—

Mobile	1.06	0.84	0.01	1.85	1.87	0.01	0.47	0.48	1,971
Area	2.56	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.69
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	312
Water	—	—	—	—	—	—	—	—	24.8
Waste	—	—	—	—	—	—	—	—	138
Refrig.	—	—	—	—	—	—	—	—	0.64
Total	3.63	0.87	0.01	1.85	1.87	0.01	0.47	0.48	2,455
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326
Area	0.47	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	51.7
Water	—	—	—	—	—	—	—	—	4.10
Waste	—	—	—	—	—	—	—	—	22.9
Refrig.	—	—	—	—	—	—	—	—	0.11
Total	0.66	0.16	< 0.005	0.34	0.34	< 0.005	0.09	0.09	406

3. Construction Emissions Details

3.1. Demolition (2025) - 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	2.51	23.3	0.96	—	0.96	0.88	—	0.88	3,728
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.34	0.06	—	0.06	0.05	—	0.05	214
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	0.03	0.24	0.01	—	0.01	0.01	—	0.01	35.5
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.00	0.14	0.14	0.00	0.03	0.03	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.44	0.01	0.09	0.09	< 0.005	0.02	0.03	352
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	20.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.35

3.2. Demolition (2025) - 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	0.46	13.1	0.21	—	0.21	0.20	—	0.20	3,728
Demolition	—	—	—	0.13	0.13	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.75	0.01	—	0.01	0.01	—	0.01	214
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	< 0.005	—	< 0.005	< 0.005	—	< 0.005	35.5
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.00	0.14	0.14	0.00	0.03	0.03	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.44	0.01	0.09	0.09	< 0.005	0.02	0.03	352
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.20

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	20.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.35

3.3. Site Preparation (2025) - 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	3.67	34.7	1.54	—	1.54	1.41	—	1.41	5,884
Dust From Material Movement	—	—	—	7.87	7.87	—	3.96	3.96	—
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	0.57	0.03	—	0.03	0.02	—	0.02	96.7
Dust From Material Movement	—	—	—	0.13	0.13	—	0.07	0.07	—
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	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
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	0.06	0.06	0.00	0.17	0.17	0.00	0.04	0.04	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2025) - 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	0.73	17.0	0.11	—	0.11	0.11	—	0.11	5,884
Dust From Material Movement	—	—	—	7.87	7.87	—	3.96	3.96	—
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	0.28	< 0.005	—	< 0.005	< 0.005	—	< 0.005	96.7
Dust From Material Movement	—	—	—	0.13	0.13	—	0.07	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
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	0.06	0.06	0.00	0.17	0.17	0.00	0.04	0.04	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - 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	1.74	16.3	0.72	—	0.72	0.66	—	0.66	2,970
Dust From Material Movement	—	—	—	2.76	2.76	—	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	0.04	0.36	0.02	—	0.02	0.01	—	0.01	65.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—
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	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.8
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.69	0.01	0.14	0.15	0.01	0.04	0.04	554
Average Daily	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.2
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.44
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	2.01

3.6. Grading (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	10.3	0.08	—	0.08	0.08	—	0.08	2,970
Dust From Material Movement	—	—	—	2.76	2.76	—	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	0.01	0.23	< 0.005	—	< 0.005	< 0.005	—	< 0.005	65.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—
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	10.8

Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.69	0.01	0.14	0.15	0.01	0.04	0.04	554
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.2
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.44
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	2.01

3.7. Building Construction (2025) - 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	1.13	10.4	0.43	—	0.43	0.40	—	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.13	10.4	0.43	—	0.43	0.40	—	0.40	2,406
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	0.70	6.46	0.27	—	0.27	0.25	—	0.25	1,488
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.18	0.05	—	0.05	0.04	—	0.04	246
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	0.26	0.19	0.00	0.64	0.64	0.00	0.15	0.15	672
Vendor	0.01	0.45	< 0.005	0.09	0.10	< 0.005	0.03	0.03	365
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.24	0.00	0.64	0.64	0.00	0.15	0.15	622
Vendor	0.01	0.47	< 0.005	0.09	0.10	< 0.005	0.03	0.03	364
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.00	0.39	0.39	0.00	0.09	0.09	389
Vendor	0.01	0.29	< 0.005	0.06	0.06	< 0.005	0.02	0.02	225
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	27.0
Annual	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.07	0.07	0.00	0.02	0.02	64.4
Vendor	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	37.3
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.47

3.8. Building Construction (2025) - 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	0.42	9.53	0.12	—	0.12	0.11	—	0.11	2,406
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	0.42	9.53	0.12	—	0.12	0.11	—	0.11	2,406
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	0.26	5.90	0.07	—	0.07	0.07	—	0.07	1,488
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.08	0.01	—	0.01	0.01	—	0.01	246
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	0.26	0.19	0.00	0.64	0.64	0.00	0.15	0.15	672
Vendor	0.01	0.45	< 0.005	0.09	0.10	< 0.005	0.03	0.03	365
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.25	0.24	0.00	0.64	0.64	0.00	0.15	0.15	622

Vendor	0.01	0.47	< 0.005	0.09	0.10	< 0.005	0.03	0.03	364
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.00	0.39	0.39	0.00	0.09	0.09	389
Vendor	0.01	0.29	< 0.005	0.06	0.06	< 0.005	0.02	0.02	225
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	27.0
Annual	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.07	0.07	0.00	0.02	0.02	64.4
Vendor	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	37.3
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.47

3.9. 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)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	0.38	—	0.38	0.35	—	0.35	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	28.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.68
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	0.22	0.21	0.00	0.64	0.64	0.00	0.15	0.15	610
Vendor	0.01	0.45	< 0.005	0.09	0.10	< 0.005	0.03	0.03	358
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.8
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.25
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.20
Hauling	< 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	< 0.005	1.20
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.70
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08

3.10. 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)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	9.53	0.12	—	0.12	0.11	—	0.11	2,405
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	0.11	< 0.005	—	< 0.005	< 0.005	—	< 0.005	28.2

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.68
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	0.22	0.21	0.00	0.64	0.64	0.00	0.15	0.15	610
Vendor	0.01	0.45	< 0.005	0.09	0.10	< 0.005	0.03	0.03	358
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	42.8
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.25
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.20
Hauling	< 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	< 0.005	1.20
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.70
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08

3.11. Paving (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	0.58	5.58	0.23	—	0.23	0.21	—	0.21	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	0.03	0.31	0.01	—	0.01	0.01	—	0.01	68.4
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	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.3
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	0.05	0.05	0.00	0.14	0.14	0.00	0.03	0.03	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.21	< 0.005	0.04	0.04	< 0.005	0.01	0.01	170
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.30
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.54

3.12. Paving (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	5.74	0.07	—	0.07	0.06	—	0.06	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	0.31	< 0.005	—	< 0.005	< 0.005	—	< 0.005	68.4
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	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.3
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	0.05	0.05	0.00	0.14	0.14	0.00	0.03	0.03	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.21	< 0.005	0.04	0.04	< 0.005	0.01	0.01	170
Average Daily	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.30
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.54

3.13. Architectural Coating (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	0.12	0.86	0.02	—	0.02	0.02	—	0.02	134
Architectural Coatings	70.2	—	—	—	—	—	—	—	—
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	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.61
Architectural Coatings	3.46	—	—	—	—	—	—	—	—
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	1.09

Architectural Coatings	0.63	—	—	—	—	—	—	—	—
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	0.13	0.13	0.00	0.03	0.03	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (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	0.02	1.07	0.03	—	0.03	0.03	—	0.03	134

Architectural Coatings	70.2	—	—	—	—	—	—	—	—
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	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.61
Architectural Coatings	3.46	—	—	—	—	—	—	—	—
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	1.09
Architectural Coatings	0.63	—	—	—	—	—	—	—	—
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	0.13	0.13	0.00	0.03	0.03	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Trenching (2025) - 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	1.93	0.07	—	0.07	0.06	—	0.06	434
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.50
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	1.57
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.04	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
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Trenching (2025) - 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	0.07	2.28	0.04	—	0.04	0.03	—	0.03	434
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	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.50
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	1.57
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.04	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

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054

Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.19	0.80	0.01	1.98	1.99	0.01	0.50	0.51	2,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.13	0.94	0.01	1.98	1.99	0.01	0.50	0.51	2,054
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.19	0.15	< 0.005	0.34	0.34	< 0.005	0.09	0.09	326

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	293
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	19.7
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	312
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	293
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	19.7

Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	312
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	48.4
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	3.27
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	51.7

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)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	293
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	19.7
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	312
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	293
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	19.7
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	312

Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	48.4
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	3.27
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	51.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

Unenclosed Parking with Elevator	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	1.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.35	—	—	—	—	—	—	—	—
Landscape Equipment	0.60	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Total	2.87	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	1.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.35	—	—	—	—	—	—	—	—
Total	2.27	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	0.35	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44
Total	0.47	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44

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	1.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.35	—	—	—	—	—	—	—	—
Landscape Equipment	0.60	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Total	2.87	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	17.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	1.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.35	—	—	—	—	—	—	—	—
Total	2.27	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	0.35	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44
Total	0.47	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.44

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	24.8
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	24.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	24.8
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	24.8
Annual	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	4.10
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	4.10

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	24.8
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	24.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	24.8
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	24.8
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	4.10

Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	4.10

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	138
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	138
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	138
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	138
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	22.9

Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	22.9

4.5.2. 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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	138
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	138
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	138
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	138
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	22.9
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	22.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.64
Total	—	—	—	—	—	—	—	—	0.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.64
Total	—	—	—	—	—	—	—	—	0.64
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.11
Total	—	—	—	—	—	—	—	—	0.11

4.6.2. 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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.64

Total	—	—	—	—	—	—	—	—	0.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.64
Total	—	—	—	—	—	—	—	—	0.64
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.11
Total	—	—	—	—	—	—	—	—	0.11

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	1/1/2025	1/29/2025	5.00	21.0	—
Site Preparation	Site Preparation	1/30/2025	2/6/2025	5.00	6.00	—
Grading	Grading	2/7/2025	2/18/2025	5.00	8.00	—
Building Construction	Building Construction	2/19/2025	1/6/2026	5.00	230	—
Paving	Paving	2/2/2026	2/27/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	1/7/2026	2/1/2026	5.00	18.0	—
Trenching	Trenching	2/7/2025	2/18/2025	5.00	8.00	—

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	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42

Paving	Rollers	Diesel	Average	1.00	6.00	36.0	0.38
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Tier 4 Interim	1.00	6.00	36.0	0.38
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	17.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	4.68	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	7.38	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	77.2	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	12.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.58	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	2.30	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.4	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	17.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	4.68	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	7.38	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	77.2	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	12.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.58	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	2.30	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.4	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	181,744	60,581	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	2,658	—
Site Preparation	—	—	12.0	0.00	—
Grading	—	468	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

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

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	809	0.03	< 0.005
2026	0.00	809	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	378	342	284	131,222	2,809	2,537	2,111	974,809
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	378	342	284	131,222	2,809	2,537	2,111	974,809
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
181743.75	60,581	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
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	593,175	178	0.0330	0.0040	0.00
Unenclosed Parking with Elevator	39,987	178	0.0330	0.0040	0.00
Parking Lot	0.00	178	0.0330	0.0040	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)
Apartments Mid Rise	593,175	178	0.0330	0.0040	0.00
Unenclosed Parking with Elevator	39,987	178	0.0330	0.0040	0.00
Parking Lot	0.00	178	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	3,590,374	0.00
Unenclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	3,590,374	0.00
Unenclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	73.2	—
Unenclosed Parking with Elevator	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	73.2	—
Unenclosed Parking with Elevator	0.00	—
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
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.4	annual days of extreme heat
Extreme Precipitation	9.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	8.65	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	17.6

AQ-PM	14.6
AQ-DPM	48.4
Drinking Water	22.7
Lead Risk Housing	36.7
Pesticides	0.00
Toxic Releases	56.8
Traffic	59.2
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	39.4
Haz Waste Facilities/Generators	44.7
Impaired Water Bodies	0.00
Solid Waste	22.1
Sensitive Population	—
Asthma	2.24
Cardio-vascular	7.02
Low Birth Weights	94.4
Socioeconomic Factor Indicators	—
Education	11.4
Housing	1.14
Linguistic	67.2
Poverty	21.5
Unemployment	6.30

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	78.51918388
Employed	78.94264083
Median HI	93.3915052
Education	—
Bachelor's or higher	90.73527525
High school enrollment	4.658026434
Preschool enrollment	44.32182728
Transportation	—
Auto Access	76.73553189
Active commuting	70.2681894
Social	—
2-parent households	96.71500064
Voting	63.51854228
Neighborhood	—
Alcohol availability	27.12690876
Park access	81.35506224
Retail density	77.42846144
Supermarket access	35.9810086
Tree canopy	82.59976902
Housing	—
Homeownership	34.67214167
Housing habitability	74.83639163
Low-inc homeowner severe housing cost burden	94.27691518
Low-inc renter severe housing cost burden	85.268831
Uncrowded housing	39.88194534
Health Outcomes	—

Insured adults	62.50481201
Arthritis	87.4
Asthma ER Admissions	97.6
High Blood Pressure	58.0
Cancer (excluding skin)	52.2
Asthma	98.6
Coronary Heart Disease	90.3
Chronic Obstructive Pulmonary Disease	95.5
Diagnosed Diabetes	76.6
Life Expectancy at Birth	96.4
Cognitively Disabled	94.6
Physically Disabled	86.7
Heart Attack ER Admissions	93.1
Mental Health Not Good	97.3
Chronic Kidney Disease	90.3
Obesity	99.0
Pedestrian Injuries	19.6
Physical Health Not Good	94.6
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	97.7
Current Smoker	97.0
No Leisure Time for Physical Activity	73.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	84.9

Elderly	75.9
English Speaking	32.5
Foreign-born	97.0
Outdoor Workers	77.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	36.5
Traffic Density	67.5
Traffic Access	50.0
Other Indices	—
Hardship	16.5
Other Decision Support	—
2016 Voting	72.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	17.0
Healthy Places Index Score for Project Location (b)	82.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	San Jose Clean Energy 2020 rate = 178 lb/MWh.
Land Use	Total lot acreage, square footages (added residential +rooftop lounge sf together) , number of units, and number of parking provided by filled out construction worksheet.
Construction: Construction Phases	Defaults reviewed and revised by project applicant.
Construction: Off-Road Equipment	Defaults revised by applicant.
Construction: Trips and VMT	Demolition = 28,692-sf of pavement demo and hauling (3.2 trips/day), Building Const = Est 67 total concrete truck round trips (0.58 trips/day), Paving = 181-cy asphalt (2.3 trips/day).
Construction: On-Road Fugitive Dust	Air District BMPs required by San Jose as Standard Permit Conditions - 15 mph vehicle speed.
Operations: Hearths	No hearths.
Operations: Energy Use	San Jose REACH Code - all electric. Convert natural gas to electric.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Operations: Vehicle Data	Provided trip gen with adjustments.

2. Emissions Summary - HRA

2.2 Construction Emissions by Year, Unmitigated

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO_2e
Daily - Summer (Max)									
2025	1.3516535	10.653129	0.4321444	0.0329692	0.4651137	0.3975908	0.0079653	0.4055561	2486.2826341128
Daily - Winter (Max)									
2025	3.7279314	34.717038	1.5358233	5.2557527	6.7915760	1.4129574	2.6431782	4.0561357	5894.827186357981
2026	70.378365	10.075067	0.3789513	0.0329692	0.4119206	0.3486590	0.0079653	0.3566243	2483.522480026785
Average Daily									
2025	1.0803477	8.9119223	0.3650434	0.1548158	0.5198592	0.3358474	0.0690865	0.4049339	1924.8947428356078
2026	3.5200864	0.4694273	0.0183243	0.0010364	0.0193608	0.0168589	0.0002477	0.0171066	105.50385330781727
Annual									
2025	0.1971634	1.6264258	0.0666204	0.0282538	0.0948743	0.0612921	0.0126082	0.0739004	318.68829146746236
2026	0.6424157	0.0856704	0.0033441	0.0001891	0.0035333	0.0030767	0.0000452	0.0031219	17.467366919175777

2. Emissions Summary - HRA

2.3 Construction Emissions by Year, Mitigated

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO_2e
Daily - Summer (Max)									
2025	0.5078313	7.2869959	0.0397949	0.0329692	0.0727642	0.0397885	0.0079653	0.0477538	2174.4514935540537
Daily - Winter (Max)									
2025	0.7813006	17.051935	0.2067490	5.2557527	5.3660543	0.1952105	2.6431782	2.7534799	5895.386135003117
2026	70.279200	7.2991433	0.0677288	0.0329692	0.0749770	0.0639835	0.0079653	0.0657245	2174.6871904132445
Average Daily									
2025	0.3596933	5.8284386	0.0409802	0.1548158	0.1957960	0.0402048	0.0690865	0.1092913	1732.1256788275318
2026	3.4880629	0.4558856	0.0056844	0.0010364	0.0067209	0.0053633	0.0002477	0.0056111	102.24740113009314
Annual									
2025	0.0656440	1.0636900	0.0074788	0.0282538	0.0357327	0.0073373	0.0126082	0.0199456	286.77317305116037
2026	0.6365714	0.0831991	0.0010374	0.0001891	0.0012265	0.0009788	0.0000452	0.0010240	16.92822409870363

5.3. Construction Vehicles - HRA

5.3.1 Unmitigated

Phase Nam	Trip Type	One-Way T	Miles per T	Vehicle Mix
Demolition				
Demolitior	Worker	17.5	0.5	LDA,LDT1,LDT2
Demolitior	Vendor		0.5	HHDT,MHDT
Demolitior	Hauling	4.68	0.5	HHDT
Demolitior	Onsite truc			HHDT
Site Preparation				
Site Prepar	Worker	20	0.5	LDA,LDT1,LDT2
Site Prepar	Vendor		0.5	HHDT,MHDT
Site Prepar	Hauling	0	0.5	HHDT
Site Prepar	Onsite truc			HHDT
Grading				
Grading	Worker	15	0.5	LDA,LDT1,LDT2
Grading	Vendor		0.5	HHDT,MHDT
Grading	Hauling	7.375	0.5	HHDT
Grading	Onsite truc			HHDT
Building Construction				
Building Cc	Worker	77.2398	0.5	LDA,LDT1,LDT2
Building Cc	Vendor	12.908840	0.5	HHDT,MHDT
Building Cc	Hauling	0.58	0.5	HHDT
Building Cc	Onsite truc			HHDT
Paving				
Paving	Worker	17.5	0.5	LDA,LDT1,LDT2
Paving	Vendor		0.5	HHDT,MHDT
Paving	Hauling	2.3	0.5	HHDT
Paving	Onsite truc			HHDT
Architectural Coating				
Architectu	Worker	15.447960	0.5	LDA,LDT1,LDT2
Architectu	Vendor		0.5	HHDT,MHDT
Architectu	Hauling	0	0.5	HHDT
Architectu	Onsite truc			HHDT
Trenching				
Trenching	Worker	5	0.5	LDA,LDT1,LDT2
Trenching	Vendor		0.5	HHDT,MHDT
Trenching	Hauling	0	0.5	HHDT
Trenching	Onsite truc			HHDT

5.3. Construction Vehicles - HRA

5.3.2 Mitigated

Phase Nam	Trip Type	One-Way T	Miles per T	Vehicle Mix
Demolition				
Demolitior	Worker	17.5	0.5	LDA,LDT1,LDT2
Demolitior	Vendor		0.5	HHDT,MHDT
Demolitior	Hauling	4.68	0.5	HHDT
Demolitior	Onsite truc			HHDT
Site Preparation				
Site Prepar	Worker	20	0.5	LDA,LDT1,LDT2
Site Prepar	Vendor		0.5	HHDT,MHDT
Site Prepar	Hauling	0	0.5	HHDT
Site Prepar	Onsite truc			HHDT
Grading				
Grading	Worker	15	0.5	LDA,LDT1,LDT2
Grading	Vendor		0.5	HHDT,MHDT
Grading	Hauling	7.375	0.5	HHDT
Grading	Onsite truc			HHDT
Building Construction				
Building Cc	Worker	77.2398	0.5	LDA,LDT1,LDT2
Building Cc	Vendor	12.908840	0.5	HHDT,MHDT
Building Cc	Hauling	0.58	0.5	HHDT
Building Cc	Onsite truc			HHDT
Paving				
Paving	Worker	17.5	0.5	LDA,LDT1,LDT2
Paving	Vendor		0.5	HHDT,MHDT
Paving	Hauling	2.3	0.5	HHDT
Paving	Onsite truc			HHDT
Architectural Coating				
Architectu	Worker	15.447960	0.5	LDA,LDT1,LDT2
Architectu	Vendor		0.5	HHDT,MHDT
Architectu	Hauling	0	0.5	HHDT
Architectu	Onsite truc			HHDT
Trenching				
Trenching	Worker	5	0.5	LDA,LDT1,LDT2
Trenching	Vendor		0.5	HHDT,MHDT
Trenching	Hauling	0	0.5	HHDT
Trenching	Onsite truc			HHDT

Attachment 2: Project Construction Emissions and Health Risk Calculations

1000 S De Anza Blvd, San Jose, CA
Construction Health Impact Summary

Maximum Impacts at MEI Location - Without Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)	Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	(-)	($\mu g/m^3$)
2025 + 2026	0.1397	0.3310	72.00	0.03	0.47
Total	-	-	**72.00**		-
Maximum	0.1397	0.3310	**-**	**0.03**	**0.47**

Maximum Impacts at MEI Location - With Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)	Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	(-)	($\mu g/m^3$)
2025 + 2026	0.0170	0.2279	8.76	0.00	0.24
Total	-	-	**8.76**	-	-
Maximum	0.0170	0.2279	**-**	**0.00**	**0.24**

1000 S De Anza Blvd, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2025	Construction	0.0666	Point	56	133.2	0.03650	4.60E-03	8.21E-05
2026	Construction	0.0033	Point	56	6.7	0.00183	2.31E-04	4.12E-06
Total		***0.0700***			***139.9***	***0.0383***	***0.0048***	

Emissions assumed to be evenly distributed over each construction areas

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

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2025	Construction	0.0075	Point	56	15.0	0.00410	5.16E-04	9.22E-06
2026	Construction	0.0010	Point	56	2.1	0.00057	7.16E-05	1.28E-06
Total		***0.0085***			***17.0***	***0.0047***	***0.0006***	

Emissions assumed to be evenly distributed over each construction areas

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

1000 S De Anza Blvd, San Jose, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2025	Construction	CON_FUG	0.0184	36.7	0.01006	1.27E-03	2867.3	4.42E-07
2026	Construction	CON_FUG	0.0000	0.1	0.00002	3.12E-06	2867.3	1.09E-09
Total			***0.0184***	***36.8***	***0.0101***	***0.0013***		

Emissions assumed to be evenly distributed over each construction areas

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

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

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2025	Construction	CON_FUG	0.0126	25.2	0.00691	8.70E-04	2867.3	3.04E-07
2026	Construction	CON_FUG	0.0000	0.1	0.00002	3.12E-06	2867.3	1.09E-09
Total			***0.0127***	***25.3***	***0.0069***	***0.0009***		

Emissions assumed to be evenly distributed over each construction areas

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

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

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

Values

	Infant/Child		**Adult**
Age -->	**3rd Trimester**	**0 - 2**	**16 - 30**
Parameter			
ASF =	10	10	1
CPF =	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	261
A =	1	1	1
EF =	350	350	350
AT =	70	70	70
FAH =	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 Informati** DPM Conc (ug/m. Year	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Adult - Exposure Information** Modeled DPM Conc (ug/m3) Year	Annual	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Maximum** Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2025 + 2026	10	3.83	2025 + 2026	0.2814	-	-			
1	1	0 - 1	2025 + 2026	10	46.22	2025 + 2026	0.2814	1	0.81	0.06	0.15	0.43
2	1	1 - 2		10	0.00		0.0000	1	0.00			
3	1	2 - 3		3	0.00		0.0000	1	0.00			
4	1	3 - 4		3	0.00		0.0000	1	0.00			
5	1	4 - 5		3	0.00		0.0000	1	0.00			
6	1	5 - 6		3	0.00		0.0000	1	0.00			
7	1	6 - 7		3	0.00		0.0000	1	0.00			
8	1	7 - 8		3	0.00		0.0000	1	0.00			
9	1	8 - 9		3	0.00		0.0000	1	0.00			
10	1	9 - 10		3	0.00		0.0000	1	0.00			
11	1	10 - 11		3	0.00		0.0000	1	0.00			
12	1	11 - 12		3	0.00		0.0000	1	0.00			
13	1	12 - 13		3	0.00		0.0000	1	0.00			
14	1	13 - 14		3	0.00		0.0000	1	0.00			
15	1	14 - 15		3	0.00		0.0000	1	0.00			
16	1	15 - 16		3	0.00		0.0000	1	0.00			
17	1	16-17		1	0.00		0.0000	1	0.00			
18	1	17-18		1	0.00		0.0000	1	0.00			
19	1	18-19		1	0.00		0.0000	1	0.00			
20	1	19-20		1	0.00		0.0000	1	0.00			
21	1	20-21		1	0.00		0.0000	1	0.00			
22	1	21-22		1	0.00		0.0000	1	0.00			
23	1	22-23		1	0.00		0.0000	1	0.00			
24	1	23-24		1	0.00		0.0000	1	0.00			
25	1	24-25		1	0.00		0.0000	1	0.00			
26	1	25-26		1	0.00		0.0000	1	0.00			
27	1	26-27		1	0.00		0.0000	1	0.00			
28	1	27-28		1	0.00		0.0000	1	0.00			
29	1	28-29		1	0.00		0.0000	1	0.00			
30	1	29-30		1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk					**50.05**				**0.81**			

* Third trimester of pregnancy

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Informati		Infant/Child	Adult - Exposure Information			Adult		Maximum	
	Exposure			Age	Cancer	Modeled		Age	Cancer			
Exposure	Duration		DPM Conc (ug/m3	Sensitivity	Risk	DPM Conc (ug/m3)		Sensitivity	Risk	Hazard	Fugitive	Total
Year	**(years)**	**Age**	**Year**	**Factor**	**(per million)**	**Year**	**Annual**	**Factor**	**(per million)**	**Index**	**PM2.5**	**PM2.5**
0	0.25	-0.25 - 0*	2025 + 2026	10	2.67	2025 + 2026	0.1964	-	-			
1	1	0 - 1	2025 + 2026	10	32.25	2025 + 2026	0.1964	1	0.56	0.04	0.25	0.44
2	1	1 - 2		10	0.00		0.0000	1	0.00			
3	1	2 - 3		3	0.00		0.0000	1	0.00			
4	1	3 - 4		3	0.00		0.0000	1	0.00			
5	1	4 - 5		3	0.00		0.0000	1	0.00			
6	1	5 - 6		3	0.00		0.0000	1	0.00			
7	1	6 - 7		3	0.00		0.0000	1	0.00			
8	1	7 - 8		3	0.00		0.0000	1	0.00			
9	1	8 - 9		3	0.00		0.0000	1	0.00			
10	1	9 - 10		3	0.00		0.0000	1	0.00			
11	1	10 - 11		3	0.00		0.0000	1	0.00			
12	1	11 - 12		3	0.00		0.0000	1	0.00			
13	1	12 - 13		3	0.00		0.0000	1	0.00			
14	1	13 - 14		3	0.00		0.0000	1	0.00			
15	1	14 - 15		3	0.00		0.0000	1	0.00			
16	1	15 - 16		3	0.00		0.0000	1	0.00			
17	1	16-17		1	0.00		0.0000	1	0.00			
18	1	17-18		1	0.00		0.0000	1	0.00			
19	1	18-19		1	0.00		0.0000	1	0.00			
20	1	19-20		1	0.00		0.0000	1	0.00			
21	1	20-21		1	0.00		0.0000	1	0.00			
22	1	21-22		1	0.00		0.0000	1	0.00			
23	1	22-23		1	0.00		0.0000	1	0.00			
24	1	23-24		1	0.00		0.0000	1	0.00			
25	1	24-25		1	0.00		0.0000	1	0.00			
26	1	25-26		1	0.00		0.0000	1	0.00			
27	1	26-27		1	0.00		0.0000	1	0.00			
28	1	27-28		1	0.00		0.0000	1	0.00			
29	1	28-29		1	0.00		0.0000	1	0.00			
30	1	29-30		1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk					**34.93**				**0.56**			

* Third trimester of pregnancy

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0	0.25	-0.25 - 0*	2025 + 2026	0.0343	10	0.47	2025 + 2026	0.0343	-	-			
1	1	0 - 1	2025 + 2026	0.0343	10	5.63	2025 + 2026	0.0343	1	0.10	0.01	0.10	0.14
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						**6.09**				**0.10**			

* Third trimester of pregnancy

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Infant/Child - Exposure Information** DPM Conc (ug/m3) Year	Annual	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Adult - Exposure Information** Modeled DPM Conc (ug/m3) Year	Annual	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**
0	0.25	-0.25 - 0*	2025 + 2026	0.0239	10	0.33	2025 + 2026	0.0239	-	-
1	1	0 - 1	2025 + 2026	0.0239	10	3.93	2025 + 2026	0.0239	1	0.07
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						**4.25**				**0.07**

* Third trimester of pregnancy

Maximum Hazard Index	Fugitive PM2.5	Total PM2.5
0.00	0.17	0.19

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Primrose School of Cupertino - 1 meter - Infant Exposure

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

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

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

Where: C_{air} = concentration in air ($\mu g/m^3$)
SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)
SHR = Hours/day of emission source operation
SDay = Number of days per week of source operation
SCHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**
Age -->	**0 - <2**	**2 - <16**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9.5	9.5
SHR =	10	10
SDay =	5	5
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.99	3.99

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

Construction Cancer Risk by Year - Maximum Preschool Impact Receptor Location

			Child - Exposure Information			**Child**	**Maximum**		
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3)**		**Age* Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
			Year	**Annual**					
1	1	1 - 2	2025 + 2026	0.1397	10	72.00	0.028	0.33	0.47
Total Increased Cancer Risk						**72.00**			

* Children assumed to be 1 year of age with 1 year of exposure to construction emissions

1000 S De Anza Blvd, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Primrose School of Cupertino - 1 meter - Infant Exposure

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

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

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

Where: C_{air} = concentration in air ($\mu g/m^3$)
SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)
SHR = Hours/day of emission source operation
SDay = Number of days per week of source operation
SCHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**
Age -->	**0 - <2**	**2 - <16**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9.5	9.5
SHR =	10	10
SDay =	5	5
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.99	3.99

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

Construction Cancer Risk by Year - Maximum Preschool Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Child - Exposure Information: DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age* Sensitivity Factor**	**Child Cancer Risk (per million)**	**Maximum Hazard Index**	**Maximum Fugitive PM2.5**	**Maximum Total PM2.5**
1	1	1 - 2	2025 + 2026	0.0170	10	8.76	0.003	0.23	0.24
Total Increased Cancer Risk						**8.76**			

* Children assumed to be 1 year of age with 1 year of exposure to construction emissions

Attachment 3: Health Risk Modeling Information and Calculations

File Name: Local Roadways 2025.EF
CT-EMFAC2021 Version: 1.0.2.0
Run Date: 11/16/2023 10:59:19 AM
Area: Santa Clara (SF)
Analysis Year: 2025
Season: Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.016	0.416	0.572
Truck 2	0.019	0.909	0.045
Non-Truck	0.965	0.007	0.917

===

Road Type: Major/Collector
Silt Loading Factor: CARB 0.032 g/m2
Precipitation Correction: CARB P = 63 days N = 365 days

===

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

Pollutant Name	35 mph	40 mph
PM2.5	0.001421	0.001277
TOG	0.021181	0.018522
Diesel PM	0.000374	0.000370

===

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

Pollutant Name	Emission Factor
TOG	0.998556

===

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

Pollutant Name	Emission Factor
PM2.5	0.002107

===

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

Pollutant Name	35 mph	40 mph
PM2.5	0.005497	0.005001

===

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

Pollutant Name	Emission Factor
PM2.5	0.015309

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

File Name:	Local Roadways 2027.EF
CT-EMFAC2021 Version:	1.0.2.0
Run Date:	11/16/2023 10:59:59 AM
Area:	Santa Clara (SF)
Analysis Year:	2027
Season:	Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.017	0.414	0.553
Truck 2	0.018	0.896	0.045
Non-Truck	0.965	0.007	0.911

===

Road Type:	Major/Collector			
Silt Loading Factor:		CARB	0.032 g/m2	
Precipitation Correction:		CARB	P = 63 days	N = 365 days

===

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

Pollutant Name	35 mph	40 mph
PM2.5	0.001282	0.001152
TOG	0.018152	0.015881
Diesel PM	0.000325	0.000324

===

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

Pollutant Name	Emission Factor
TOG	0.954655

===

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

Pollutant Name	Emission Factor
PM2.5	0.002102

===

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

Pollutant Name	35 mph	40 mph
PM2.5	0.005477	0.004985

==

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

Pollutant Name	Emission Factor
PM2.5	0.015277

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

1000 S De Anza Blvd, San Jose, CA - S De Anza Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1 meter receptor height)

Emission Year	2025
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Construction MEI location
Meteorological Conditions	
BAAQMD San Jose International Airport Me	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	0.0022	0.1416	0.1907

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	0.1812	0.1714	0.0097

1000 S De Anza Blvd, San Jose, CA - S De Anza Blvd Traffic Cancer Risk
Impacts at Construction Residential MEI - 1 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2025	10	0.0022	0.1416	0.1907	0.030	0.011	0.0009	0.04
1	1	0 - 1	2025	10	0.0022	0.1416	0.1907	0.361	0.133	0.0105	0.50
2	1	1 - 2	2026	10	0.0022	0.1416	0.1907	0.361	0.133	0.0105	0.50
3	1	2 - 3	2027	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
4	1	3 - 4	2028	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
5	1	4 - 5	2029	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
6	1	5 - 6	2030	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
7	1	6 - 7	2031	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
8	1	7 - 8	2032	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
9	1	8 - 9	2033	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
10	1	9 - 10	2034	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
11	1	10 - 11	2035	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
12	1	11 - 12	2036	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
13	1	12 - 13	2037	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
14	1	13 - 14	2038	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
15	1	14 - 15	2039	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
16	1	15 - 16	2040	3	0.0022	0.1416	0.1907	0.057	0.021	0.0017	0.08
17	1	16-17	2041	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
18	1	17-18	2042	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
19	1	18-19	2043	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
20	1	19-20	2044	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
21	1	20-21	2045	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
22	1	21-22	2046	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
23	1	22-23	2047	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
24	1	23-24	2048	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
25	1	24-25	2049	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
26	1	25-26	2050	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
27	1	26-27	2051	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
28	1	27-28	2052	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
29	1	28-29	2053	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
30	1	29-30	2054	1	0.0022	0.1416	0.1907	0.006	0.002	0.0002	0.01
Total Increased Cancer Risk								1.64	0.602	0.048	**2.29**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00044	0.17	0.18

1000 S De Anza Blvd, San Jose, CA - Bollinger Road Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1 meter receptor height)

Emission Year	2025
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1 meter
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	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	0.0002	0.0084	0.0113

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	0.0097	0.0091	0.0006

1000 S De Anza Blvd, San Jose, CA - Bollinger Road Traffic Cancer Risk
Impacts at Construction Residential MEI - 1 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2025	10	0.0002	0.0084	0.0113	0.002	0.001	0.0001	0.00
1	1	0 - 1	2025	10	0.0002	0.0084	0.0113	0.026	0.008	0.0006	0.03
2	1	1 - 2	2026	10	0.0002	0.0084	0.0113	0.026	0.008	0.0006	0.03
3	1	2 - 3	2027	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
4	1	3 - 4	2028	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
5	1	4 - 5	2029	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
6	1	5 - 6	2030	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
7	1	6 - 7	2031	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
8	1	7 - 8	2032	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
9	1	8 - 9	2033	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
10	1	9 - 10	2034	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
11	1	10 - 11	2035	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
12	1	11 - 12	2036	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
13	1	12 - 13	2037	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
14	1	13 - 14	2038	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
15	1	14 - 15	2039	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
16	1	15 - 16	2040	3	0.0002	0.0084	0.0113	0.004	0.001	0.0001	0.01
17	1	16-17	2041	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
18	1	17-18	2042	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
19	1	18-19	2043	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
20	1	19-20	2044	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
21	1	20-21	2045	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
22	1	21-22	2046	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
23	1	22-23	2047	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
24	1	23-24	2048	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
25	1	24-25	2049	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
26	1	25-26	2050	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
27	1	26-27	2051	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
28	1	27-28	2052	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
29	1	28-29	2053	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
30	1	29-30	2054	1	0.0002	0.0084	0.0113	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.12	0.036	0.003	**0.16**

Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00003	0.01	0.01

* Third trimester of pregnancy

1000 S De Anza Blvd, San Jose, CA - S De Anza Blvd Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite MEI Receptor (4.5 & 7.6 meter receptor height)

Emission Year	2027
Receptor Information	Construction MEI receptor
Number of Receptors	40 & 40
Receptor Height	4.5 & 7.6 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	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	0.0032	0.1807	0.2725
2013-2017	0.0022	0.0791	0.1193

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	0.2686	0.2555	0.0131

1000 S De Anza Blvd, San Jose, CA - S De Anza Blvd Traffic Cancer Risk
Impacts at Onsite Residential MEI - 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2027	10	0.0032	0.1807	0.2725	0.044	0.014	0.0012	0.06
1	1	0 - 1	2027	10	0.0032	0.1807	0.2725	0.529	0.169	0.0151	0.71
2	1	1 - 2	2028	10	0.0032	0.1807	0.2725	0.529	0.169	0.0151	0.71
3	1	2 - 3	2029	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
4	1	3 - 4	2030	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
5	1	4 - 5	2031	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
6	1	5 - 6	2032	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
7	1	6 - 7	2033	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
8	1	7 - 8	2034	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
9	1	8 - 9	2035	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
10	1	9 - 10	2036	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
11	1	10 - 11	2037	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
12	1	11 - 12	2038	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
13	1	12 - 13	2039	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
14	1	13 - 14	2040	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
15	1	14 - 15	2041	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
16	1	15 - 16	2042	3	0.0032	0.1807	0.2725	0.083	0.027	0.0024	0.11
17	1	16-17	2043	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
18	1	17-18	2044	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
19	1	18-19	2045	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
20	1	19-20	2046	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
21	1	20-21	2047	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
22	1	21-22	2048	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
23	1	22-23	2049	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
24	1	23-24	2050	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
25	1	24-25	2051	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
26	1	25-26	2052	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
27	1	26-27	2053	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
28	1	27-28	2054	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
29	1	28-29	2055	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
30	1	29-30	2056	1	0.0032	0.1807	0.2725	0.009	0.003	0.0003	0.01
Total Increased Cancer Risk								2.40	0.768	0.068	**3.23**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00064	0.26	0.27

1000 S De Anza Blvd, San Jose, CA - S De Anza Blvd Traffic Cancer Risk
Impacts at Onsite Residential MEI - 7.6 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2027	10	0.0022	0.0791	0.1193	0.030	0.006	0.0005	0.04
1	1	0 - 1	2027	10	0.0022	0.0791	0.1193	0.366	0.074	0.0066	0.45
2	1	1 - 2	2028	10	0.0022	0.0791	0.1193	0.366	0.074	0.0066	0.45
3	1	2 - 3	2029	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
4	1	3 - 4	2030	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
5	1	4 - 5	2031	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
6	1	5 - 6	2032	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
7	1	6 - 7	2033	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
8	1	7 - 8	2034	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
9	1	8 - 9	2035	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
10	1	9 - 10	2036	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
11	1	10 - 11	2037	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
12	1	11 - 12	2038	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
13	1	12 - 13	2039	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
14	1	13 - 14	2040	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
15	1	14 - 15	2041	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
16	1	15 - 16	2042	3	0.0022	0.0791	0.1193	0.058	0.012	0.0010	0.07
17	1	16-17	2043	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
18	1	17-18	2044	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
19	1	18-19	2045	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
20	1	19-20	2046	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
21	1	20-21	2047	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
22	1	21-22	2048	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
23	1	22-23	2049	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
24	1	23-24	2050	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
25	1	24-25	2051	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
26	1	25-26	2052	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
27	1	26-27	2053	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
28	1	27-28	2054	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
29	1	28-29	2055	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
30	1	29-30	2056	1	0.0022	0.0791	0.1193	0.006	0.001	0.0001	0.01
Total Increased Cancer Risk								1.66	0.336	0.030	**2.03**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00045	0.11	0.12

1000 S De Anza Blvd, San Jose, CA - Bollinger Road Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (4.5 & 7.6 meter receptor height)

Emission Year	2027
Receptor Information	Construction MEI receptor
Number of Receptors	40 & 40
Receptor Height	4.5 & 7.6 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions	
BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological	Concentration (μg/m3)*		
Data Years	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0002	0.0053	0.0154
2013-2017	0.0002	0.0048	0.0139

Construction MEI PM2.5 Maximum Concentrations

Meteorological	PM2.5 Concentration (μg/m3)*		
Data Years	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0136	0.0129	0.0007

1000 S De Anza Blvd, San Jose, CA - Bollinger Road Traffic Cancer Risk
Impacts at Onsite Residential MEI - 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2027	10	0.0002	0.0053	0.0154	0.003	0.000	0.0001	0.00
1	1	0 - 1	2027	10	0.0002	0.0053	0.0154	0.031	0.005	0.0008	0.04
2	1	1 - 2	2028	10	0.0002	0.0053	0.0154	0.031	0.005	0.0008	0.04
3	1	2 - 3	2029	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
4	1	3 - 4	2030	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
5	1	4 - 5	2031	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
6	1	5 - 6	2032	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
7	1	6 - 7	2033	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
8	1	7 - 8	2034	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
9	1	8 - 9	2035	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
10	1	9 - 10	2036	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
11	1	10 - 11	2037	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
12	1	11 - 12	2038	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
13	1	12 - 13	2039	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
14	1	13 - 14	2040	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
15	1	14 - 15	2041	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
16	1	15 - 16	2042	3	0.0002	0.0053	0.0154	0.005	0.001	0.0001	0.01
17	1	16-17	2043	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
18	1	17-18	2044	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
19	1	18-19	2045	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
20	1	19-20	2046	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
21	1	20-21	2047	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
22	1	21-22	2048	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
23	1	22-23	2049	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
24	1	23-24	2050	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
25	1	24-25	2051	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
26	1	25-26	2052	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
27	1	26-27	2053	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
28	1	27-28	2054	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
29	1	28-29	2055	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
30	1	29-30	2056	1	0.0002	0.0053	0.0154	0.001	0.000	0.0000	0.00
Total Increased Cancer Risk								0.14	0.022	0.004	**0.17**

* Third trimester of pregnancy

Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00004	0.01	0.01

1000 S De Anza Blvd, San Jose, CA - Bollinger Road Traffic Cancer Risk
Impacts at Onsite Residential MEI - 7.6 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

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

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

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

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2027	10	0.0002	0.0048	0.0139	0.002	0.000	0.0001	0.00
1	1	0 - 1	2027	10	0.0002	0.0048	0.0139	0.026	0.004	0.0008	0.03
2	1	1 - 2	2028	10	0.0002	0.0048	0.0139	0.026	0.004	0.0008	0.03
3	1	2 - 3	2029	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
4	1	3 - 4	2030	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
5	1	4 - 5	2031	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
6	1	5 - 6	2032	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
7	1	6 - 7	2033	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
8	1	7 - 8	2034	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
9	1	8 - 9	2035	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
10	1	9 - 10	2036	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
11	1	10 - 11	2037	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
12	1	11 - 12	2038	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
13	1	12 - 13	2039	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
14	1	13 - 14	2040	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
15	1	14 - 15	2041	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
16	1	15 - 16	2042	3	0.0002	0.0048	0.0139	0.004	0.001	0.0001	0.00
17	1	16-17	2043	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
18	1	17-18	2044	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
19	1	18-19	2045	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
20	1	19-20	2046	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
21	1	20-21	2047	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
22	1	21-22	2048	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
23	1	22-23	2049	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
24	1	23-24	2050	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
25	1	24-25	2051	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
26	1	25-26	2052	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
27	1	26-27	2053	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
28	1	27-28	2054	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
29	1	28-29	2055	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
30	1	29-30	2056	1	0.0002	0.0048	0.0139	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.12	0.020	0.003	**0.14**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00003	0.01	0.01

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - Bollinger Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

											Line Area					
Road Link	**Description**	**Direction**	**No. Lanes**	**Link Length (m)**	**Link Length (mi)**	**Link Width (m)**	**Link Width (ft)**	**Release Height (m)**	**Average Speed (mph)**	**Average Vehicles per Day**	**Area (sq m)**	**Area (sq ft)**	**Emission (g/s/m2)**	**Emission (lb/hr/ft2)**	**Initial Vertical height (m)**	**(Sigma z) Initial Vertical Dimension**
DPM_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	43.7	3.4	35	9,096	8,721	93,877	1.837E-09	1.355E-09	6.8	3.16
DPM_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	43.7	3.4	35	9,096	8,699	93,633	1.837E-09	1.355E-09	6.8	3.16
									Total	18,192						

Emission Factors

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

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and DPM Emissions - DPM_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.93%	358	1.51E-05	9	6.41%	583	2.46E-05	17	5.55%	505	2.13E-05
2	2.62%	239	1.01E-05	10	7.36%	670	2.83E-05	18	3.16%	287	1.21E-05
3	2.85%	259	1.10E-05	11	6.34%	577	2.44E-05	19	2.36%	214	9.07E-06
4	3.31%	301	1.27E-05	12	6.92%	629	2.66E-05	20	0.87%	79	3.33E-06
5	2.17%	197	8.33E-06	13	6.29%	572	2.42E-05	21	3.09%	281	1.19E-05
6	3.36%	306	1.29E-05	14	6.23%	567	2.40E-05	22	4.12%	374	1.58E-05
7	6.00%	545	2.31E-05	15	5.15%	469	1.98E-05	23	2.58%	234	9.91E-06
8	4.58%	417	1.76E-05	16	3.84%	349	1.48E-05	24	0.92%	84	3.55E-06
								Total		9,096	

2025 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.93%	358	1.51E-05	9	6.41%	583	2.46E-05	17	5.55%	505	2.13E-05
2	2.62%	239	1.01E-05	10	7.36%	670	2.83E-05	18	3.16%	287	1.21E-05
3	2.85%	259	1.09E-05	11	6.34%	577	2.43E-05	19	2.36%	214	9.05E-06
4	3.31%	301	1.27E-05	12	6.92%	629	2.65E-05	20	0.87%	79	3.32E-06
5	2.17%	197	8.31E-06	13	6.29%	572	2.41E-05	21	3.09%	281	1.18E-05
6	3.36%	306	1.29E-05	14	6.23%	567	2.39E-05	22	4.12%	374	1.58E-05
7	6.00%	545	2.30E-05	15	5.15%	469	1.98E-05	23	2.58%	234	9.88E-06
8	4.58%	417	1.76E-05	16	3.84%	349	1.47E-05	24	0.92%	84	3.54E-06
								Total		9,096	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - Bollinger Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2025

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_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,096	8,721	93,877	6.98E-09	5.15E-09	2.6	1.21
PM2.5_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,096	8,699	93,633	6.98E-09	5.15E-09	2.6	1.21
									Total	18,192						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001421			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	105	1.68E-05	9	7.11%	647	1.04E-04	17	7.39%	672	1.08E-04
2	0.42%	38	6.16E-06	10	4.39%	399	6.41E-05	18	8.18%	744	1.19E-04
3	0.41%	37	5.97E-06	11	4.66%	424	6.81E-05	19	5.69%	518	8.32E-05
4	0.26%	24	3.80E-06	12	5.89%	535	8.60E-05	20	4.28%	389	6.25E-05
5	0.50%	45	7.26E-06	13	6.15%	559	8.99E-05	21	3.25%	296	4.76E-05
6	0.91%	83	1.33E-05	14	6.04%	549	8.82E-05	22	3.30%	300	4.82E-05
7	3.79%	345	5.54E-05	15	7.01%	638	1.02E-04	23	2.46%	224	3.60E-05
8	7.77%	706	1.13E-04	16	7.14%	650	1.04E-04	24	1.86%	170	2.72E-05
								Total		9,096	

2025 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	105	1.68E-05	9	7.11%	647	1.04E-04	17	7.39%	672	1.08E-04
2	0.42%	38	6.15E-06	10	4.39%	399	6.39E-05	18	8.18%	744	1.19E-04
3	0.41%	37	5.95E-06	11	4.66%	424	6.80E-05	19	5.69%	518	8.30E-05
4	0.26%	24	3.79E-06	12	5.89%	535	8.58E-05	20	4.28%	389	6.23E-05
5	0.50%	45	7.24E-06	13	6.15%	559	8.96E-05	21	3.25%	296	4.74E-05
6	0.91%	83	1.32E-05	14	6.04%	549	8.80E-05	22	3.30%	300	4.81E-05
7	3.79%	345	5.52E-05	15	7.01%	638	1.02E-04	23	2.46%	224	3.59E-05
8	7.77%	706	1.13E-04	16	7.14%	650	1.04E-04	24	1.86%	170	2.72E-05
								Total		9,096	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - Bollinger Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,096	8,721	93,877	1.04E-07	7.67E-08	2.6	1.21
TEXH_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,096	8,699	93,633	1.04E-07	7.67E-08	2.6	1.21
									Total	18,192						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02118			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	105	2.50E-04	9	7.11%	647	1.55E-03	17	7.39%	672	1.61E-03
2	0.42%	38	9.19E-05	10	4.39%	399	9.56E-04	18	8.18%	744	1.78E-03
3	0.41%	37	8.89E-05	11	4.66%	424	1.02E-03	19	5.69%	518	1.24E-03
4	0.26%	24	5.66E-05	12	5.89%	535	1.28E-03	20	4.28%	389	9.31E-04
5	0.50%	45	1.08E-04	13	6.15%	559	1.34E-03	21	3.25%	296	7.09E-04
6	0.91%	83	1.98E-04	14	6.04%	549	1.32E-03	22	3.30%	300	7.18E-04
7	3.79%	345	8.25E-04	15	7.01%	638	1.53E-03	23	2.46%	224	5.36E-04
8	7.77%	706	1.69E-03	16	7.14%	650	1.56E-03	24	1.86%	170	4.06E-04
								Total		9,096	

2025 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	105	2.50E-04	9	7.11%	647	1.55E-03	17	7.39%	672	1.61E-03
2	0.42%	38	9.16E-05	10	4.39%	399	9.53E-04	18	8.18%	744	1.78E-03
3	0.41%	37	8.87E-05	11	4.66%	424	1.01E-03	19	5.69%	518	1.24E-03
4	0.26%	24	5.65E-05	12	5.89%	535	1.28E-03	20	4.28%	389	9.29E-04
5	0.50%	45	1.08E-04	13	6.15%	559	1.34E-03	21	3.25%	296	7.07E-04
6	0.91%	83	1.97E-04	14	6.04%	549	1.31E-03	22	3.30%	300	7.16E-04
7	3.79%	345	8.23E-04	15	7.01%	638	1.52E-03	23	2.46%	224	5.35E-04
8	7.77%	706	1.69E-03	16	7.14%	650	1.55E-03	24	1.86%	170	4.05E-04
								Total		9,096	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - Bollinger Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,096	8,721	93,877	1.40E-07	1.03E-07	2.6	1.21
TEVAP_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,096	8,699	93,633	1.40E-07	1.03E-07	2.6	1.21
									Total	18,192						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.99856			
Emissions per Vehicle per Mile (g/VMT)	0.02853			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	105	3.37E-04	9	7.11%	647	2.09E-03	17	7.39%	672	2.17E-03
2	0.42%	38	1.24E-04	10	4.39%	399	1.29E-03	18	8.18%	744	2.40E-03
3	0.41%	37	1.20E-04	11	4.66%	424	1.37E-03	19	5.69%	518	1.67E-03
4	0.26%	24	7.63E-05	12	5.89%	535	1.73E-03	20	4.28%	389	1.25E-03
5	0.50%	45	1.46E-04	13	6.15%	559	1.80E-03	21	3.25%	296	9.55E-04
6	0.91%	83	2.66E-04	14	6.04%	549	1.77E-03	22	3.30%	300	9.67E-04
7	3.79%	345	1.11E-03	15	7.01%	638	2.06E-03	23	2.46%	224	7.22E-04
8	7.77%	706	2.28E-03	16	7.14%	650	2.09E-03	24	1.86%	170	5.47E-04
								Total		9,096	

2025 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	105	3.36E-04	9	7.11%	647	2.08E-03	17	7.39%	672	2.16E-03
2	0.42%	38	1.23E-04	10	4.39%	399	1.28E-03	18	8.18%	744	2.39E-03
3	0.41%	37	1.19E-04	11	4.66%	424	1.36E-03	19	5.69%	518	1.67E-03
4	0.26%	24	7.61E-05	12	5.89%	535	1.72E-03	20	4.28%	389	1.25E-03
5	0.50%	45	1.45E-04	13	6.15%	559	1.80E-03	21	3.25%	296	9.52E-04
6	0.91%	83	2.65E-04	14	6.04%	549	1.77E-03	22	3.30%	300	9.65E-04
7	3.79%	345	1.11E-03	15	7.01%	638	2.05E-03	23	2.46%	224	7.20E-04
8	7.77%	706	2.27E-03	16	7.14%	650	2.09E-03	24	1.86%	170	5.45E-04
								Total		9,096	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - Bollinger Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2025

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
FUG_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,096	8,721	93,877	1.13E-07	8.30E-08	2.6	1.21
FUG_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,096	8,699	93,633	1.13E-07	8.30E-08	2.6	1.21
									Total	18,192						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00550			
Road Dust - Emissions per Vehicle (g/VMT)	0.01531			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02291			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	105	2.71E-04	9	7.11%	647	1.68E-03	17	7.39%	672	1.74E-03
2	0.42%	38	9.94E-05	10	4.39%	399	1.03E-03	18	8.18%	744	1.93E-03
3	0.41%	37	9.62E-05	11	4.66%	424	1.10E-03	19	5.69%	518	1.34E-03
4	0.26%	24	6.13E-05	12	5.89%	535	1.39E-03	20	4.28%	389	1.01E-03
5	0.50%	45	1.17E-04	13	6.15%	559	1.45E-03	21	3.25%	296	7.67E-04
6	0.91%	83	2.14E-04	14	6.04%	549	1.42E-03	22	3.30%	300	7.77E-04
7	3.79%	345	8.93E-04	15	7.01%	638	1.65E-03	23	2.46%	224	5.80E-04
8	7.77%	706	1.83E-03	16	7.14%	650	1.68E-03	24	1.86%	170	4.39E-04
								Total		9,096	

2025 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	105	2.70E-04	9	7.11%	647	1.67E-03	17	7.39%	672	1.74E-03
2	0.42%	38	9.91E-05	10	4.39%	399	1.03E-03	18	8.18%	744	1.92E-03
3	0.41%	37	9.59E-05	11	4.66%	424	1.10E-03	19	5.69%	518	1.34E-03
4	0.26%	24	6.11E-05	12	5.89%	535	1.38E-03	20	4.28%	389	1.00E-03
5	0.50%	45	1.17E-04	13	6.15%	559	1.45E-03	21	3.25%	296	7.65E-04
6	0.91%	83	2.13E-04	14	6.04%	549	1.42E-03	22	3.30%	300	7.75E-04
7	3.79%	345	8.90E-04	15	7.01%	638	1.65E-03	23	2.46%	224	5.78E-04
8	7.77%	706	1.83E-03	16	7.14%	650	1.68E-03	24	1.86%	170	4.38E-04
								Total		9,096	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - Bollinger Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM 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)	Line Area Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	43.7	3.4	35	9,248	8,721	93,877	1.623E-09	1.197E-09	6.8	3.16
DPM_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	43.7	3.4	35	9,248	8,699	93,633	1.623E-09	1.197E-09	6.8	3.16
									Total	18,495						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00033			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and DPM Emissions - DPM_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.95%	366	1.34E-05	9	6.40%	592	2.18E-05	17	5.61%	519	1.91E-05
2	2.66%	246	9.02E-06	10	7.41%	685	2.52E-05	18	3.24%	300	1.10E-05
3	2.88%	266	9.79E-06	11	6.34%	586	2.15E-05	19	2.21%	205	7.52E-06
4	3.28%	303	1.11E-05	12	6.96%	644	2.36E-05	20	0.86%	79	2.91E-06
5	2.15%	199	7.29E-06	13	6.22%	576	2.12E-05	21	3.06%	283	1.04E-05
6	3.28%	303	1.11E-05	14	6.17%	570	2.10E-05	22	4.19%	388	1.42E-05
7	6.06%	560	2.06E-05	15	5.16%	477	1.75E-05	23	2.61%	241	8.86E-06
8	4.54%	420	1.54E-05	16	3.92%	362	1.33E-05	24	0.85%	78	2.88E-06
								Total		9,248	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.95%	366	1.34E-05	9	6.40%	592	2.17E-05	17	5.61%	519	1.90E-05
2	2.66%	246	9.00E-06	10	7.41%	685	2.51E-05	18	3.24%	300	1.10E-05
3	2.88%	266	9.77E-06	11	6.34%	586	2.15E-05	19	2.21%	205	7.50E-06
4	3.28%	303	1.11E-05	12	6.96%	644	2.36E-05	20	0.86%	79	2.91E-06
5	2.15%	199	7.28E-06	13	6.22%	576	2.11E-05	21	3.06%	283	1.04E-05
6	3.28%	303	1.11E-05	14	6.17%	570	2.09E-05	22	4.19%	388	1.42E-05
7	6.06%	560	2.05E-05	15	5.16%	477	1.75E-05	23	2.61%	241	8.84E-06
8	4.54%	420	1.54E-05	16	3.92%	362	1.33E-05	24	0.85%	78	2.87E-06
								Total		9,248	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - Bollinger Road
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_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,248	8,721	93,877	6.40E-09	4.72E-09	2.6	1.21
PM2.5_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,248	8,699	93,633	6.40E-09	4.72E-09	2.6	1.21
									Total	18,495						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001282			

Emisson Factors from CT-EMFAC2021

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	107	1.54E-05	9	7.11%	658	9.53E-05	17	7.39%	683	9.90E-05
2	0.42%	39	5.62E-06	10	4.39%	406	5.88E-05	18	8.18%	756	1.10E-04
3	0.40%	37	5.42E-06	11	4.66%	431	6.25E-05	19	5.69%	527	7.63E-05
4	0.26%	24	3.50E-06	12	5.89%	545	7.89E-05	20	4.27%	395	5.73E-05
5	0.49%	46	6.63E-06	13	6.15%	569	8.25E-05	21	3.26%	301	4.36E-05
6	0.90%	84	1.21E-05	14	6.04%	558	8.09E-05	22	3.30%	305	4.42E-05
7	3.79%	350	5.08E-05	15	7.01%	649	9.40E-05	23	2.46%	228	3.30E-05
8	7.76%	718	1.04E-04	16	7.14%	660	9.57E-05	24	1.87%	172	2.50E-05
								Total		9,248	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	107	1.54E-05	9	7.11%	658	9.51E-05	17	7.39%	683	9.88E-05
2	0.42%	39	5.60E-06	10	4.39%	406	5.87E-05	18	8.18%	756	1.09E-04
3	0.40%	37	5.40E-06	11	4.66%	431	6.23E-05	19	5.69%	527	7.61E-05
4	0.26%	24	3.49E-06	12	5.89%	545	7.87E-05	20	4.27%	395	5.71E-05
5	0.49%	46	6.61E-06	13	6.15%	569	8.23E-05	21	3.26%	301	4.35E-05
6	0.90%	84	1.21E-05	14	6.04%	558	8.07E-05	22	3.30%	305	4.41E-05
7	3.79%	350	5.06E-05	15	7.01%	649	9.38E-05	23	2.46%	228	3.30E-05
8	7.76%	718	1.04E-04	16	7.14%	660	9.55E-05	24	1.87%	172	2.49E-05
								Total		9,248	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - Bollinger Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust 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	(Sigma z) Initial Vertical Dimension
TEXH_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,248	8,721	93,877	9.07E-08	6.69E-08	2.6	1.21
TEXH_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,248	8,699	93,633	9.07E-08	6.69E-08	2.6	1.21
									Total	18,495						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01815			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	107	2.19E-04	9	7.11%	658	1.35E-03	17	7.39%	683	1.40E-03
2	0.42%	39	7.96E-05	10	4.39%	406	8.33E-04	18	8.18%	756	1.55E-03
3	0.40%	37	7.67E-05	11	4.66%	431	8.85E-04	19	5.69%	527	1.08E-03
4	0.26%	24	4.96E-05	12	5.89%	545	1.12E-03	20	4.27%	395	8.11E-04
5	0.49%	46	9.38E-05	13	6.15%	569	1.17E-03	21	3.26%	301	6.18E-04
6	0.90%	84	1.72E-04	14	6.04%	558	1.15E-03	22	3.30%	305	6.26E-04
7	3.79%	350	7.19E-04	15	7.01%	649	1.33E-03	23	2.46%	228	4.68E-04
8	7.76%	718	1.47E-03	16	7.14%	660	1.36E-03	24	1.87%	172	3.54E-04
								Total		9,248	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	107	2.18E-04	9	7.11%	658	1.35E-03	17	7.39%	683	1.40E-03
2	0.42%	39	7.94E-05	10	4.39%	406	8.31E-04	18	8.18%	756	1.55E-03
3	0.40%	37	7.65E-05	11	4.66%	431	8.83E-04	19	5.69%	527	1.08E-03
4	0.26%	24	4.95E-05	12	5.89%	545	1.11E-03	20	4.27%	395	8.09E-04
5	0.49%	46	9.36E-05	13	6.15%	569	1.16E-03	21	3.26%	301	6.16E-04
6	0.90%	84	1.71E-04	14	6.04%	558	1.14E-03	22	3.30%	305	6.24E-04
7	3.79%	350	7.17E-04	15	7.01%	649	1.33E-03	23	2.46%	228	4.67E-04
8	7.76%	718	1.47E-03	16	7.14%	660	1.35E-03	24	1.87%	172	3.53E-04
								Total		9,248	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - Bollinger Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative 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	(Sigma z) Initial Vertical Dimension
TEVAP_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,248	8,721	93,877	1.36E-07	1.00E-07	2.6	1.21
TEVAP_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,248	8,699	93,633	1.36E-07	1.00E-07	2.6	1.21
									Total	18,495						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.95466			
Emissions per Vehicle per Mile (g/VMT)	0.02728			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	107	3.29E-04	9	7.11%	658	2.03E-03	17	7.39%	683	2.11E-03
2	0.42%	39	1.20E-04	10	4.39%	406	1.25E-03	18	8.18%	756	2.33E-03
3	0.40%	37	1.15E-04	11	4.66%	431	1.33E-03	19	5.69%	527	1.62E-03
4	0.26%	24	7.45E-05	12	5.89%	545	1.68E-03	20	4.27%	395	1.22E-03
5	0.49%	46	1.41E-04	13	6.15%	569	1.75E-03	21	3.26%	301	9.29E-04
6	0.90%	84	2.58E-04	14	6.04%	558	1.72E-03	22	3.30%	305	9.40E-04
7	3.79%	350	1.08E-03	15	7.01%	649	2.00E-03	23	2.46%	228	7.03E-04
8	7.76%	718	2.21E-03	16	7.14%	660	2.04E-03	24	1.87%	172	5.32E-04
								Total		9,248	

2027 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	107	3.28E-04	9	7.11%	658	2.02E-03	17	7.39%	683	2.10E-03
2	0.42%	39	1.19E-04	10	4.39%	406	1.25E-03	18	8.18%	756	2.33E-03
3	0.40%	37	1.15E-04	11	4.66%	431	1.33E-03	19	5.69%	527	1.62E-03
4	0.26%	24	7.43E-05	12	5.89%	545	1.67E-03	20	4.27%	395	1.22E-03
5	0.49%	46	1.41E-04	13	6.15%	569	1.75E-03	21	3.26%	301	9.26E-04
6	0.90%	84	2.57E-04	14	6.04%	558	1.72E-03	22	3.30%	305	9.38E-04
7	3.79%	350	1.08E-03	15	7.01%	649	1.99E-03	23	2.46%	228	7.01E-04
8	7.76%	718	2.21E-03	16	7.14%	660	2.03E-03	24	1.87%	172	5.30E-04
								Total		9,248	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - Bollinger Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road 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	(Sigma z) Initial Vertical Dimension
FUG_EB_BOL	Bollinger Road Eastbound	EB	2	655.0	0.41	13.3	44	1.3	35	9,248	8,721	93,877	1.14E-07	8.42E-08	2.6	1.21
FUG_WB_BOL	Bollinger Road Westbound	WB	2	653.3	0.41	13.3	44	1.3	35	9,248	8,699	93,633	1.14E-07	8.42E-08	2.6	1.21
									Total	18,495						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00548			
Road Dust - Emissions per Vehicle (g/VMT)	0.01528			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02286			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EB_BOL

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	107	2.75E-04	9	7.11%	658	1.70E-03	17	7.39%	683	1.77E-03
2	0.42%	39	1.00E-04	10	4.39%	406	1.05E-03	18	8.18%	756	1.95E-03
3	0.40%	37	9.66E-05	11	4.66%	431	1.11E-03	19	5.69%	527	1.36E-03
4	0.26%	24	6.24E-05	12	5.89%	545	1.41E-03	20	4.27%	395	1.02E-03
5	0.49%	46	1.18E-04	13	6.15%	569	1.47E-03	21	3.26%	301	7.78E-04
6	0.90%	84	2.16E-04	14	6.04%	558	1.44E-03	22	3.30%	305	7.88E-04
7	3.79%	350	9.05E-04	15	7.01%	649	1.68E-03	23	2.46%	228	5.89E-04
8	7.76%	718	1.86E-03	16	7.14%	660	1.71E-03	24	1.87%	172	4.46E-04
								Total		9,248	

2027 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WB_BOL

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	107	2.75E-04	9	7.11%	658	1.69E-03	17	7.39%	683	1.76E-03
2	0.42%	39	9.99E-05	10	4.39%	406	1.05E-03	18	8.18%	756	1.95E-03
3	0.40%	37	9.63E-05	11	4.66%	431	1.11E-03	19	5.69%	527	1.36E-03
4	0.26%	24	6.23E-05	12	5.89%	545	1.40E-03	20	4.27%	395	1.02E-03
5	0.49%	46	1.18E-04	13	6.15%	569	1.47E-03	21	3.26%	301	7.76E-04
6	0.90%	84	2.16E-04	14	6.04%	558	1.44E-03	22	3.30%	305	7.86E-04
7	3.79%	350	9.02E-04	15	7.01%	649	1.67E-03	23	2.46%	228	5.87E-04
8	7.76%	718	1.85E-03	16	7.14%	660	1.70E-03	24	1.87%	172	4.45E-04
								Total		9,248	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - S De Anza Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_DAN	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	55.7	3.4	40	18,699	11,117	119,664	2.932E-09	2.162E-09	6.8	3.16
DPM_SB_DAN	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	55.7	3.4	40	18,699	11,088	119,354	2.932E-09	2.162E-09	6.8	3.16
									Total	37,398						

Emission Factors

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

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and DPM Emissions - DPM_NB_DAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.93%	736	3.08E-05	9	6.41%	1198	5.01E-05	17	5.55%	1038	4.34E-05
2	2.62%	490	2.05E-05	10	7.36%	1377	5.76E-05	18	3.16%	590	2.47E-05
3	2.85%	533	2.23E-05	11	6.34%	1185	4.96E-05	19	2.36%	441	1.84E-05
4	3.31%	618	2.59E-05	12	6.92%	1294	5.41E-05	20	0.87%	162	6.77E-06
5	2.17%	405	1.69E-05	13	6.29%	1176	4.92E-05	21	3.09%	578	2.42E-05
6	3.36%	629	2.63E-05	14	6.23%	1166	4.88E-05	22	4.12%	769	3.22E-05
7	6.00%	1121	4.69E-05	15	5.15%	963	4.03E-05	23	2.58%	482	2.01E-05
8	4.58%	857	3.58E-05	16	3.84%	718	3.00E-05	24	0.92%	172	7.21E-06
								Total		18,699	

2025 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_DAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.93%	736	3.07E-05	9	6.41%	1198	5.00E-05	17	5.55%	1038	4.33E-05
2	2.62%	490	2.05E-05	10	7.36%	1377	5.75E-05	18	3.16%	590	2.46E-05
3	2.85%	533	2.22E-05	11	6.34%	1185	4.95E-05	19	2.36%	441	1.84E-05
4	3.31%	618	2.58E-05	12	6.92%	1294	5.40E-05	20	0.87%	162	6.75E-06
5	2.17%	405	1.69E-05	13	6.29%	1176	4.91E-05	21	3.09%	578	2.41E-05
6	3.36%	629	2.62E-05	14	6.23%	1166	4.86E-05	22	4.12%	769	3.21E-05
7	6.00%	1121	4.68E-05	15	5.15%	963	4.02E-05	23	2.58%	482	2.01E-05
8	4.58%	857	3.57E-05	16	3.84%	718	3.00E-05	24	0.92%	172	7.20E-06
								Total		18,699	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - S De Anza Blvd
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2025

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_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	18,699	11,117	119,664	1.01E-08	7.46E-09	2.6	1.21
PM2.5_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	18,699	11,088	119,354	1.01E-08	7.46E-09	2.6	1.21
									Total	37,398						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001277			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	215	3.10E-05	9	7.11%	1330	1.92E-04	17	7.39%	1382	1.99E-04
2	0.42%	79	1.14E-05	10	4.39%	820	1.18E-04	18	8.18%	1529	2.21E-04
3	0.41%	76	1.10E-05	11	4.66%	872	1.26E-04	19	5.69%	1065	1.54E-04
4	0.26%	49	7.02E-06	12	5.89%	1101	1.59E-04	20	4.28%	799	1.15E-04
5	0.50%	93	1.34E-05	13	6.15%	1150	1.66E-04	21	3.25%	609	8.79E-05
6	0.91%	170	2.45E-05	14	6.04%	1129	1.63E-04	22	3.30%	616	8.90E-05
7	3.79%	708	1.02E-04	15	7.01%	1311	1.89E-04	23	2.46%	460	6.64E-05
8	7.77%	1452	2.10E-04	16	7.14%	1335	1.93E-04	24	1.86%	349	5.03E-05
								Total		18,699	

2025 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	215	3.10E-05	9	7.11%	1330	1.92E-04	17	7.39%	1382	1.99E-04
2	0.42%	79	1.14E-05	10	4.39%	820	1.18E-04	18	8.18%	1529	2.20E-04
3	0.41%	76	1.10E-05	11	4.66%	872	1.26E-04	19	5.69%	1065	1.53E-04
4	0.26%	49	7.00E-06	12	5.89%	1101	1.59E-04	20	4.28%	799	1.15E-04
5	0.50%	93	1.34E-05	13	6.15%	1150	1.66E-04	21	3.25%	609	8.76E-05
6	0.91%	170	2.44E-05	14	6.04%	1129	1.63E-04	22	3.30%	616	8.88E-05
7	3.79%	708	1.02E-04	15	7.01%	1311	1.89E-04	23	2.46%	460	6.63E-05
8	7.77%	1452	2.09E-04	16	7.14%	1335	1.92E-04	24	1.86%	349	5.02E-05
								Total		18,699	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - S De Anza Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

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_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	18,699	11,117	119,664	1.47E-07	1.08E-07	2.6	1.21
TEXH_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	18,699	11,088	119,354	1.47E-07	1.08E-07	2.6	1.21
									Total	37,398						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.01852			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	215	4.50E-04	9	7.11%	1330	2.79E-03	17	7.39%	1382	2.89E-03
2	0.42%	79	1.65E-04	10	4.39%	820	1.72E-03	18	8.18%	1529	3.20E-03
3	0.41%	76	1.60E-04	11	4.66%	872	1.83E-03	19	5.69%	1065	2.23E-03
4	0.26%	49	1.02E-04	12	5.89%	1101	2.31E-03	20	4.28%	799	1.67E-03
5	0.50%	93	1.95E-04	13	6.15%	1150	2.41E-03	21	3.25%	609	1.27E-03
6	0.91%	170	3.55E-04	14	6.04%	1129	2.36E-03	22	3.30%	616	1.29E-03
7	3.79%	708	1.48E-03	15	7.01%	1311	2.75E-03	23	2.46%	460	9.64E-04
8	7.77%	1452	3.04E-03	16	7.14%	1335	2.80E-03	24	1.86%	349	7.30E-04
								Total		18,699	

2025 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	215	4.49E-04	9	7.11%	1330	2.78E-03	17	7.39%	1382	2.89E-03
2	0.42%	79	1.65E-04	10	4.39%	820	1.71E-03	18	8.18%	1529	3.19E-03
3	0.41%	76	1.59E-04	11	4.66%	872	1.82E-03	19	5.69%	1065	2.22E-03
4	0.26%	49	1.02E-04	12	5.89%	1101	2.30E-03	20	4.28%	799	1.67E-03
5	0.50%	93	1.94E-04	13	6.15%	1150	2.40E-03	21	3.25%	609	1.27E-03
6	0.91%	170	3.54E-04	14	6.04%	1129	2.36E-03	22	3.30%	616	1.29E-03
7	3.79%	708	1.48E-03	15	7.01%	1311	2.74E-03	23	2.46%	460	9.61E-04
8	7.77%	1452	3.03E-03	16	7.14%	1335	2.79E-03	24	1.86%	349	7.28E-04
								Total		18,699	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - S De Anza Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

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_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	18,699	11,117	119,664	1.98E-07	1.46E-07	2.6	1.21
TEVAP_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	18,699	11,088	119,354	1.98E-07	1.46E-07	2.6	1.21
									Total	37,398						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	0.99856			
Emissions per Vehicle per Mile (g/VMT)	0.02496			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	215	6.07E-04	9	7.11%	1330	3.75E-03	17	7.39%	1382	3.90E-03
2	0.42%	79	2.23E-04	10	4.39%	820	2.32E-03	18	8.18%	1529	4.32E-03
3	0.41%	76	2.15E-04	11	4.66%	872	2.46E-03	19	5.69%	1065	3.01E-03
4	0.26%	49	1.37E-04	12	5.89%	1101	3.11E-03	20	4.28%	799	2.26E-03
5	0.50%	93	2.62E-04	13	6.15%	1150	3.25E-03	21	3.25%	609	1.72E-03
6	0.91%	170	4.79E-04	14	6.04%	1129	3.19E-03	22	3.30%	616	1.74E-03
7	3.79%	708	2.00E-03	15	7.01%	1311	3.70E-03	23	2.46%	460	1.30E-03
8	7.77%	1452	4.10E-03	16	7.14%	1335	3.77E-03	24	1.86%	349	9.84E-04
								Total		18,699	

2025 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	215	6.05E-04	9	7.11%	1330	3.74E-03	17	7.39%	1382	3.89E-03
2	0.42%	79	2.22E-04	10	4.39%	820	2.31E-03	18	8.18%	1529	4.30E-03
3	0.41%	76	2.15E-04	11	4.66%	872	2.45E-03	19	5.69%	1065	3.00E-03
4	0.26%	49	1.37E-04	12	5.89%	1101	3.10E-03	20	4.28%	799	2.25E-03
5	0.50%	93	2.62E-04	13	6.15%	1150	3.24E-03	21	3.25%	609	1.71E-03
6	0.91%	170	4.77E-04	14	6.04%	1129	3.18E-03	22	3.30%	616	1.74E-03
7	3.79%	708	1.99E-03	15	7.01%	1311	3.69E-03	23	2.46%	460	1.30E-03
8	7.77%	1452	4.09E-03	16	7.14%	1335	3.76E-03	24	1.86%	349	9.81E-04
								Total		18,699	

1000 S De Anza Blvd, San Jose, CA - Off-Site Residential
Cumulative Operation - S De Anza Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2025

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
FUG_NB_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	18,699	11,117	119,664	1.78E-07	1.31E-07	2.6	1.21
FUG_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	18,699	11,088	119,354	1.78E-07	1.31E-07	2.6	1.21
									Total	37,398						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00500			
Road Dust - Emissions per Vehicle (g/VMT)	0.01531			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02242			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	215	5.45E-04	9	7.11%	1330	3.37E-03	17	7.39%	1382	3.50E-03
2	0.42%	79	2.00E-04	10	4.39%	820	2.08E-03	18	8.18%	1529	3.87E-03
3	0.41%	76	1.93E-04	11	4.66%	872	2.21E-03	19	5.69%	1065	2.70E-03
4	0.26%	49	1.23E-04	12	5.89%	1101	2.79E-03	20	4.28%	799	2.03E-03
5	0.50%	93	2.35E-04	13	6.15%	1150	2.91E-03	21	3.25%	609	1.54E-03
6	0.91%	170	4.30E-04	14	6.04%	1129	2.86E-03	22	3.30%	616	1.56E-03
7	3.79%	708	1.80E-03	15	7.01%	1311	3.32E-03	23	2.46%	460	1.17E-03
8	7.77%	1452	3.68E-03	16	7.14%	1335	3.38E-03	24	1.86%	349	8.83E-04
								Total		18,699	

2025 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	215	5.43E-04	9	7.11%	1330	3.36E-03	17	7.39%	1382	3.49E-03
2	0.42%	79	1.99E-04	10	4.39%	820	2.07E-03	18	8.18%	1529	3.86E-03
3	0.41%	76	1.93E-04	11	4.66%	872	2.20E-03	19	5.69%	1065	2.69E-03
4	0.26%	49	1.23E-04	12	5.89%	1101	2.78E-03	20	4.28%	799	2.02E-03
5	0.50%	93	2.35E-04	13	6.15%	1150	2.91E-03	21	3.25%	609	1.54E-03
6	0.91%	170	4.29E-04	14	6.04%	1129	2.85E-03	22	3.30%	616	1.56E-03
7	3.79%	708	1.79E-03	15	7.01%	1311	3.31E-03	23	2.46%	460	1.16E-03
8	7.77%	1452	3.67E-03	16	7.14%	1335	3.38E-03	24	1.86%	349	8.81E-04
								Total		18,699	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - S De Anza Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM 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	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_DAN	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	55.7	3.4	40	19,049	11,117	119,664	2.615E-09	1.928E-09	6.8	3.16
DPM_SB_DAN	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	55.7	3.4	40	19,049	11,088	119,354	2.615E-09	1.928E-09	6.8	3.16
									Total	38,097						

Emission Factors

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

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and DPM Emissions - DPM_NB_DAN

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.95%	753	2.76E-05	9	6.40%	1220	4.47E-05	17	5.61%	1069	3.92E-05
2	2.66%	506	1.85E-05	10	7.41%	1412	5.17E-05	18	3.24%	617	2.26E-05
3	2.88%	549	2.01E-05	11	6.34%	1207	4.42E-05	19	2.21%	422	1.54E-05
4	3.28%	624	2.29E-05	12	6.96%	1326	4.86E-05	20	0.86%	163	5.98E-06
5	2.15%	409	1.50E-05	13	6.22%	1186	4.34E-05	21	3.06%	583	2.14E-05
6	3.28%	624	2.29E-05	14	6.17%	1175	4.30E-05	22	4.19%	798	2.92E-05
7	6.06%	1153	4.22E-05	15	5.16%	983	3.60E-05	23	2.61%	497	1.82E-05
8	4.54%	865	3.17E-05	16	3.92%	746	2.73E-05	24	0.85%	161	5.91E-06
								Total		19,049	

2027 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_DAN

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.95%	753	2.75E-05	9	6.40%	1220	4.46E-05	17	5.61%	1069	3.91E-05
2	2.66%	506	1.85E-05	10	7.41%	1412	5.16E-05	18	3.24%	617	2.25E-05
3	2.88%	549	2.01E-05	11	6.34%	1207	4.41E-05	19	2.21%	422	1.54E-05
4	3.28%	624	2.28E-05	12	6.96%	1326	4.84E-05	20	0.86%	163	5.97E-06
5	2.15%	409	1.49E-05	13	6.22%	1186	4.33E-05	21	3.06%	583	2.13E-05
6	3.28%	624	2.28E-05	14	6.17%	1175	4.29E-05	22	4.19%	798	2.92E-05
7	6.06%	1153	4.21E-05	15	5.16%	983	3.59E-05	23	2.61%	497	1.82E-05
8	4.54%	865	3.16E-05	16	3.92%	746	2.73E-05	24	0.85%	161	5.90E-06
								Total		19,049	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - S De Anza Blvd
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_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	19,049	11,117	119,664	9.30E-09	6.86E-09	2.6	1.21
PM2.5_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	19,049	11,088	119,354	9.30E-09	6.86E-09	2.6	1.21
									Total	38,097						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001152			

Emisson Factors from CT-EMFAC2021

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	220	2.86E-05	9	7.11%	1354	1.76E-04	17	7.39%	1407	1.83E-04
2	0.42%	80	1.04E-05	10	4.39%	836	1.09E-04	18	8.18%	1558	2.03E-04
3	0.40%	77	1.00E-05	11	4.66%	888	1.16E-04	19	5.69%	1085	1.41E-04
4	0.26%	50	6.48E-06	12	5.89%	1122	1.46E-04	20	4.27%	814	1.06E-04
5	0.49%	94	1.23E-05	13	6.15%	1172	1.53E-04	21	3.26%	620	8.08E-05
6	0.90%	172	2.24E-05	14	6.04%	1150	1.50E-04	22	3.30%	628	8.18E-05
7	3.79%	721	9.39E-05	15	7.01%	1336	1.74E-04	23	2.46%	470	6.11E-05
8	7.76%	1479	1.93E-04	16	7.14%	1360	1.77E-04	24	1.87%	355	4.63E-05
								Total		19,049	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	220	2.85E-05	9	7.11%	1354	1.76E-04	17	7.39%	1407	1.83E-04
2	0.42%	80	1.04E-05	10	4.39%	836	1.09E-04	18	8.18%	1558	2.02E-04
3	0.40%	77	1.00E-05	11	4.66%	888	1.15E-04	19	5.69%	1085	1.41E-04
4	0.26%	50	6.47E-06	12	5.89%	1122	1.46E-04	20	4.27%	814	1.06E-04
5	0.49%	94	1.22E-05	13	6.15%	1172	1.52E-04	21	3.26%	620	8.06E-05
6	0.90%	172	2.24E-05	14	6.04%	1150	1.49E-04	22	3.30%	628	8.16E-05
7	3.79%	721	9.37E-05	15	7.01%	1336	1.74E-04	23	2.46%	470	6.10E-05
8	7.76%	1479	1.92E-04	16	7.14%	1360	1.77E-04	24	1.87%	355	4.62E-05
								Total		19,049	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - S De Anza Blvd
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust 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	(Sigma z) Initial Vertical Dimension
TEXH_NB_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	19,049	11,117	119,664	1.28E-07	9.45E-08	2.6	1.21
TEXH_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	19,049	11,088	119,354	1.28E-07	9.45E-08	2.6	1.21
									Total	38,097						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.01588			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	220	3.94E-04	9	7.11%	1354	2.43E-03	17	7.39%	1407	2.53E-03
2	0.42%	80	1.43E-04	10	4.39%	836	1.50E-03	18	8.18%	1558	2.80E-03
3	0.40%	77	1.38E-04	11	4.66%	888	1.59E-03	19	5.69%	1085	1.95E-03
4	0.26%	50	8.94E-05	12	5.89%	1122	2.01E-03	20	4.27%	814	1.46E-03
5	0.49%	94	1.69E-04	13	6.15%	1172	2.10E-03	21	3.26%	620	1.11E-03
6	0.90%	172	3.09E-04	14	6.04%	1150	2.06E-03	22	3.30%	628	1.13E-03
7	3.79%	721	1.30E-03	15	7.01%	1336	2.40E-03	23	2.46%	470	8.43E-04
8	7.76%	1479	2.65E-03	16	7.14%	1360	2.44E-03	24	1.87%	355	6.38E-04
								Total		19,049	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	220	3.93E-04	9	7.11%	1354	2.43E-03	17	7.39%	1407	2.52E-03
2	0.42%	80	1.43E-04	10	4.39%	836	1.50E-03	18	8.18%	1558	2.79E-03
3	0.40%	77	1.38E-04	11	4.66%	888	1.59E-03	19	5.69%	1085	1.94E-03
4	0.26%	50	8.91E-05	12	5.89%	1122	2.01E-03	20	4.27%	814	1.46E-03
5	0.49%	94	1.69E-04	13	6.15%	1172	2.10E-03	21	3.26%	620	1.11E-03
6	0.90%	172	3.08E-04	14	6.04%	1150	2.06E-03	22	3.30%	628	1.12E-03
7	3.79%	721	1.29E-03	15	7.01%	1336	2.39E-03	23	2.46%	470	8.41E-04
8	7.76%	1479	2.65E-03	16	7.14%	1360	2.44E-03	24	1.87%	355	6.36E-04
								Total		19,049	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - S De Anza Blvd
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative 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	(Sigma z) Initial Vertical Dimension
TEVAP_NB_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	19,049	11,117	119,664	1.93E-07	1.42E-07	2.6	1.21
TEVAP_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	19,049	11,088	119,354	1.93E-07	1.42E-07	2.6	1.21
									Total	38,097						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	0.95466			
Emissions per Vehicle per Mile (g/VMT)	0.02387			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	220	5.92E-04	9	7.11%	1354	3.65E-03	17	7.39%	1407	3.80E-03
2	0.42%	80	2.15E-04	10	4.39%	836	2.26E-03	18	8.18%	1558	4.20E-03
3	0.40%	77	2.08E-04	11	4.66%	888	2.40E-03	19	5.69%	1085	2.93E-03
4	0.26%	50	1.34E-04	12	5.89%	1122	3.03E-03	20	4.27%	814	2.20E-03
5	0.49%	94	2.54E-04	13	6.15%	1172	3.16E-03	21	3.26%	620	1.67E-03
6	0.90%	172	4.65E-04	14	6.04%	1150	3.10E-03	22	3.30%	628	1.69E-03
7	3.79%	721	1.95E-03	15	7.01%	1336	3.60E-03	23	2.46%	470	1.27E-03
8	7.76%	1479	3.99E-03	16	7.14%	1360	3.67E-03	24	1.87%	355	9.59E-04
								Total		19,049	

2027 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	220	5.91E-04	9	7.11%	1354	3.65E-03	17	7.39%	1407	3.79E-03
2	0.42%	80	2.15E-04	10	4.39%	836	2.25E-03	18	8.18%	1558	4.19E-03
3	0.40%	77	2.07E-04	11	4.66%	888	2.39E-03	19	5.69%	1085	2.92E-03
4	0.26%	50	1.34E-04	12	5.89%	1122	3.02E-03	20	4.27%	814	2.19E-03
5	0.49%	94	2.53E-04	13	6.15%	1172	3.15E-03	21	3.26%	620	1.67E-03
6	0.90%	172	4.64E-04	14	6.04%	1150	3.09E-03	22	3.30%	628	1.69E-03
7	3.79%	721	1.94E-03	15	7.01%	1336	3.60E-03	23	2.46%	470	1.26E-03
8	7.76%	1479	3.98E-03	16	7.14%	1360	3.66E-03	24	1.87%	355	9.56E-04
								Total		19,049	

1000 S De Anza Blvd, San Jose, CA - On-Site Residential
Cumulative Operation - S De Anza Blvd
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road 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	(Sigma z) Initial Vertical Dimension
FUG_NB_CAP	S De Anza Blvd Northbound	NB	3	655.0	0.41	17.0	56	1.3	40	19,049	11,117	119,664	1.81E-07	1.33E-07	2.6	1.21
FUG_SB_CAP	S De Anza Blvd Southbound	SB	3	653.3	0.41	17.0	56	1.3	40	19,049	11,088	119,354	1.81E-07	1.33E-07	2.6	1.21
									Total	38,097						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00210			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00499			
Road Dust - Emissions per Vehicle (g/VMT)	0.01528			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02236			

Emisson Factors from CT-EMFAC2021

2027 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_CAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	220	5.55E-04	9	7.11%	1354	3.42E-03	17	7.39%	1407	3.56E-03
2	0.42%	80	2.02E-04	10	4.39%	836	2.11E-03	18	8.18%	1558	3.94E-03
3	0.40%	77	1.95E-04	11	4.66%	888	2.25E-03	19	5.69%	1085	2.74E-03
4	0.26%	50	1.26E-04	12	5.89%	1122	2.84E-03	20	4.27%	814	2.06E-03
5	0.49%	94	2.38E-04	13	6.15%	1172	2.96E-03	21	3.26%	620	1.57E-03
6	0.90%	172	4.36E-04	14	6.04%	1150	2.91E-03	22	3.30%	628	1.59E-03
7	3.79%	721	1.82E-03	15	7.01%	1336	3.38E-03	23	2.46%	470	1.19E-03
8	7.76%	1479	3.74E-03	16	7.14%	1360	3.44E-03	24	1.87%	355	8.98E-04
								Total		19,049	

2027 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_CAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	220	5.54E-04	9	7.11%	1354	3.42E-03	17	7.39%	1407	3.55E-03
2	0.42%	80	2.01E-04	10	4.39%	836	2.11E-03	18	8.18%	1558	3.93E-03
3	0.40%	77	1.94E-04	11	4.66%	888	2.24E-03	19	5.69%	1085	2.74E-03
4	0.26%	50	1.26E-04	12	5.89%	1122	2.83E-03	20	4.27%	814	2.05E-03
5	0.49%	94	2.38E-04	13	6.15%	1172	2.96E-03	21	3.26%	620	1.56E-03
6	0.90%	172	4.34E-04	14	6.04%	1150	2.90E-03	22	3.30%	628	1.58E-03
7	3.79%	721	1.82E-03	15	7.01%	1336	3.37E-03	23	2.46%	470	1.18E-03
8	7.76%	1479	3.73E-03	16	7.14%	1360	3.43E-03	24	1.87%	355	8.96E-04
								Total		19,049	

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**1/13/2023**
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	jbauer@illingworthrodkin.com
Project Name	1000 S De Anza
Address	1000 S De Anza
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	99du
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A ncomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in Table B lue section only.

6. Note that a small percentage of the stationa... ...ve Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments
1000	17733	The Home Depot #6635	975 So De Anza Blvd	8.993	0.021	0.011		Generator		2021 Dataset
760	108703	Rotten Robbie #07	1051 S de Anza Blvd	32.768	0.142	-		Gas Dispensing Facility		2021 Dataset

Project MEI

Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
0.04	0.36	0.00084	0.0004
0.42	0.83	0.06000	-

Project Site

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
755	17733	0.07	0.63	0.0015	0.0008
730	108703	0.025	0.83	0.0600	-

Footnotes:

1. Maximally exposed individual

2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.

8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
   a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
   b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
   c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.
   Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
   d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
   e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
   f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
   g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

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)	**5,250,000**	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)	**230**	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)	**230**	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)	**230**	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)	**0.83**
Max Worker Cancer Risk (chances/million)	**0.07**
Chronic HI	**0.00**
Acute HI	**0.06**

11/16/2023 11:34 AM

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)	**5,250,000**	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)	**222**	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)	**222**	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)	**222**	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.

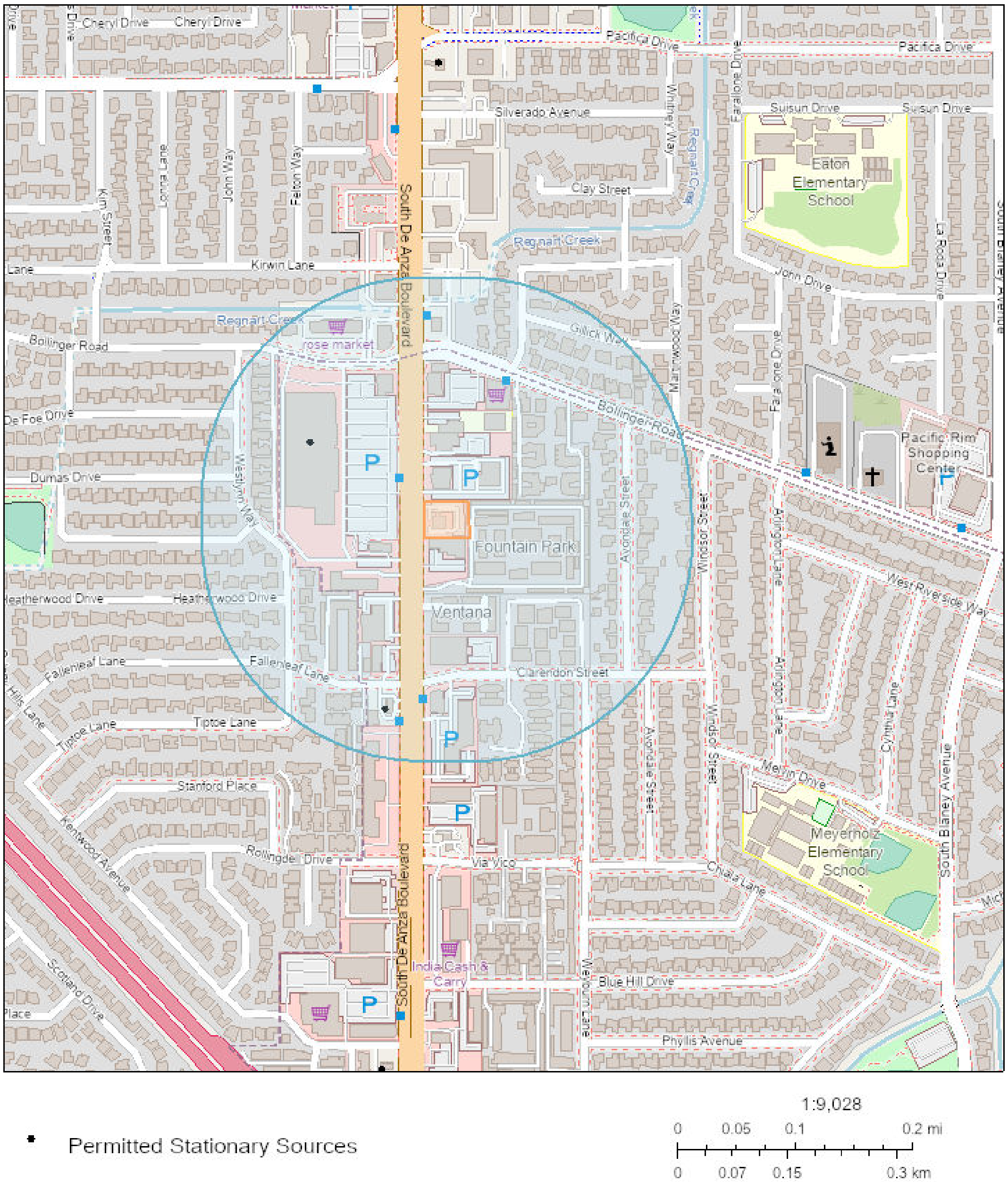
Risk Value	Results	
Max Residential Cancer Risk (chances/million)	**0.83**	11/16/2023 11:33 AM
Max Worker Cancer Risk (chances/million)	**0.07**	
Chronic HI	**0.00**	
Acute HI	**0.06**	

Screening Report

Area of Interest (AOI) Information

Area : 3,904,186.23 ft²

Jul 19 2023 9:52:59 Pacific Daylight Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	2	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	17733	The Home Depot #6635	975 So De Anza Blvd	San Jose	CA
2	108703	Rotten Robbie #07	1051 S de Anza Blvd	San Jose	CA

#	Zip	County	Latitude	Longitude	Details
1	95129	Santa Clara	37.311213	-122.033835	Generator
2	95129	Santa Clara	37.307931	-122.032673	Gas Dispensing Facility

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	452112	Retail Trade	General Merchandise Stores	Discount Department Stores	8.993000
2	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	32.768000

#	Chronic_Ha	PM25	Count
1	0.021000	0.011000	1
2	0.142000	0.000000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.

Attachment 4: City of San José's CAP Development Compliance Checklist