

Health Risk Assessment (HRA)



HECKER PASS SUBDIVISION HEALTH RISK ASSESSMENT

Gilroy, California

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Introduction

The purpose of this report is to address health risk impacts associated with the proposed residential subdivision project located at 2480 & 2740 Hecker Pass Road in Gilroy, California. The potential project health risks and the impacts of existing toxic air contaminant (TAC) sources affecting nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).¹

Project Description

The approximately 17.85-acre project site is currently developed with a single-family residence and a commercial use. The project proposes to demolish the existing uses and construct 116 single-family homes totaling 218,154 square feet (sf). Construction is expected to occur during May 2026 through December 2029.

Setting

Ambient Air Quality Standards

The Federal and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants now include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), respirable particulate matter with a diameter less than 10 microns (PM₁₀), sulfur dioxide (SO₂), and lead (Pb). In 1997, The Environmental Protection Agency (EPA) added fine particulate matter (PM_{2.5}) as a criteria pollutant. The air pollutants for which standards have been established are considered the most prevalent air pollutants known to be hazardous to human health. California ambient air quality standards (CAAQS) include the NAAQS pollutants and also hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. These additional CAAQS pollutants tend to have unique sources and are not typically included in environmental air quality assessments. In addition, lead concentrations have decreased dramatically since it was removed from motor vehicle fuels. The Bay Area has attained the CO standard and monitoring data from the last 30 years show relatively low concentrations throughout the Bay Area. Therefore, CO is not an air quality issue for land use type projects such as this one.

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 that are downwind of air pollutant sources. High ozone concentrations aggravate

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

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 (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (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 in BAAQMD's current CEQA guidance.²

PM_{2.5} emissions can include TACs. Due to the adverse health effects caused by PM_{2.5} exposure even at low concentrations, BAAQMD developed assessing methods and health risk thresholds to address exposure to increased concentrations caused by project PM_{2.5} emissions.³

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

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.

³ BAAQMD, 2022 CEQA Air Quality Guidelines, Appendix A, p40.

facilities, and elementary schools. For cancer risk assessments, infants and small 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 single-family homes to the south across Lone Oak Court/3rd Street. There are also sensitive receptors at further distances located in the single-family homes to the north and southeast of the project site and worker receptors east of the site. This project would introduce new sensitive receptors (i.e., residents) to the area.

Project Air Quality Conditions

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

Bay Area Air 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 National Ambient Air Quality Standards and California Ambient Air Quality Standards. 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.⁴ The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program has been implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses has been used to develop emission reduction activities in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Seven areas have been identified by 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 any CARE areas.

⁴ See BAAQMD: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>.

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.⁵ The BAAQMD has identified several overburdened areas within its boundaries. The project site is not within an overburdened area as the Project site is scored at the 9th percentile on CalEnviroScreen.⁶

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 and air toxics emissions as shown in Table 1.⁷ Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

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 PM₁₀ and PM_{2.5}) to be less than significant if BMPs are implemented (listed below). BAAQMD strongly encourages enhanced BMPs for construction sites near schools, residential areas, other sensitive land uses, or if air quality impacts were found to be significant.

Table 1. BAAQMD CEQA Significance Thresholds

Health Risks and Hazards	Single Sources/ Individual Project		Combined Sources (Cumulative from all sources within 1000-foot zone of influence)	
Excess Cancer Risk	>10 in a million	OR Compliance with Qualified Community Risk Reduction Plan	>100 in a million	OR Compliance with Qualified Community Risk Reduction Plan
Hazard Index	>1.0		>10.0	
Incremental annual PM _{2.5}	>0.3 µg/m ³		>0.8 µg/m ³	
Note: 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. * 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.				

Source: Bay Area Air Quality Management District, 2022

⁵ See BAAQMD: https://www.baaqmd.gov/~/_media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofverburdenedcommunities-pdf.pdf?la=en.

⁶ OEHHA, CalEnviroScreen 4.0 Maps

https://experience.arcgis.com/experience/11d2f52282a54cee6184203/page/CalEnviroScreen-4_0/

⁷ Bay Area Air Quality Management District, 2023. *2022 CEQA Guidelines*. April.

City of Gilroy General Plan

The City of Gilroy 2040 General Plan⁸ was adopted by the City on November 2, 2020. The pertinent goals and policies applicable to the proposed project are listed below.

- Goal NCR 3:** Contribute to improvements in regional air quality and reductions in greenhouse gas emissions.
- NCR 3.15:** *Reduce Construction Emissions.* Require the use of low emissions construction equipment for public and private projects, consistent with the air district 2017 Clean Air Plan. Where construction-related emissions would exceed the applicable Thresholds of Significance, the City will consider, on a case-by-case basis, implementing Additional Construction Mitigation Measures (Table 8-3 in BAAQMD's CEQA Guidelines).⁹
- NCR 3.16:** *Implement Dust-Control Measures.* Require the implementation of the air district's dust control measures during construction of individual projects, consistent with the air district 2017 Clean Air Plan.
- NCR 3.17:** *Sensitive Receptors within 500 feet of U.S. Highway 101.* Require modeling of toxic air contaminants, and include mitigation as may be appropriate, prior to approval of new residential development within 500 feet of U.S. Highway 101, to ensure significant health risks are mitigated.
- NCR 3.18:** *Sensitive Receptors within 500 feet of Existing Point Sources or Existing Heavy Industrial Designated Areas.* Require modeling of toxic air contaminants, and include mitigation as may be appropriate, prior to approval of new residential development within the Downtown Specific Plan within 500 feet of existing point sources with screening factors in excess of thresholds, or within 500 feet of areas designated Heavy Industrial, to ensure significant health risks are mitigated.

Construction Health Risk Impacts

Project impacts related to increased health risk can occur by generating emissions of TACs and air pollutants. Temporary project construction activity would generate emissions of DPM from equipment and trucks and generate dust on a temporary basis that could affect nearby sensitive receptors. Additionally, there are existing sources of TACs and localized air pollutants in the vicinity of the project. The cumulative impact of the Project and existing TAC sources was assessed.

Health risk impacts are addressed by predicting increased lifetime cancer risk, the increase in annual PM_{2.5} concentrations, and computing the Hazard Index (HI) for non-cancer health risks. Construction

⁸ City of Gilroy, 2040 General Plan, November 2, 2020. Web:

<https://www.cityofgilroy.org/DocumentCenter/View/11309/Gilroy-2040-General-Plan-39-MB?bidId=>

⁹ This refers to the measures contained in the 2017 version of BAAQMD's CEQA Air Quality Guidelines, which are similar to the measures listed in the 2022 Guidelines.

equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust emissions pose health risks for sensitive receptors such as surrounding residents, school students, and daycare infants/children. The primary health risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. 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}.¹⁰ This assessment included dispersion modeling to predict the offsite and onsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated. The project maximally exposed individual (MEI) is identified as the sensitive receptor(s) that is most impacted by the project's health risk impacts from construction activities.

CalEEMod Modeling

The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from construction of the site assuming full build-out of the project, including on-site construction activity, construction vehicle trips, and evaporative emissions. The CalEEMod modeling, which included the project land use type and size and anticipated construction schedule, was performed by EMC Planning Group. The construction inputs and model output from CalEEMod is included as *Attachment 1*. 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
Single Family Housing	116	Dwelling Unit	218,154	12.3
Other Asphalt Surfaces	242	1,000-sf	-	5.56

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 the equipment quantities, average hours per day, total number of workdays, and schedule, were based on information provided by EMC Planning Group (included in *Attachment 1*). The project schedule assumes the earliest possible start date to be May 2026 and the project would be built out over a period of approximately 44 months.

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 demolition material to be exported, soil imported and/or exported to the site, and the concrete and asphalt truck trips to and from the site. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. Daily haul trips for demolition and grading were developed by CalEEMod using the provided demolition and soil import/export volumes. The number of total concrete and asphalt round haul trips were provided for the project and converted to daily one-way trips, assuming two trips per delivery. These values are shown in the project construction equipment worksheet included in *Attachment 1*.

¹⁰ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. The 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 PM₁₀ and PM_{2.5}) to be less-than-significant if BMPs are implemented to reduce these emissions. Gilroy General Plan Policy NCR 3.16 requires the implementation of the air district’s dust control measures during construction of individual projects, consistent with the air district 2017 Clean Air Plan. The project would be required to implement the BMPs recommended by BAAQMD (per General Plan Policy NCR 3.16) during all phases of construction to reduce dust and other particulate matter emissions, and these measures were included in the project CalEEMod modeling.

Gilroy General Plan Policy NCR 3.16/Basic BMPs: 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.

The City's General Plan Policy is consistent with BAAQMD-recommended basic BMPs for reducing fugitive dust contained in the BAAQMD CEQA Air Quality Guidelines. For this analysis, only the basic set of BMPs are required as the Project emissions and PM_{2.5} impacts were below the BAAQMD thresholds. Enhanced BMPs are not required as mitigation, since air quality impacts were found to be less than significant.

Construction Emissions

The CalEEMod model provided total uncontrolled annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles. Total DPM emissions were estimated to be 0.16 tons (328 pounds) and controlled fugitive dust emissions (PM_{2.5}), assuming application of the City's General Plan Policy NCR 3.16, to be 0.10 tons (190 pounds) from all construction stages. The on-road emissions are a result of haul truck travel during grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that the emissions from on-road vehicles traveling at or near the site would occur at the construction site.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). This includes the nearby existing residences 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. 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.

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.¹¹ Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions.

¹¹ BAAQMD, 2023, *Appendix E of the 2022 BAAQMD CEQA Guidelines*. April.

Construction Emission Sources

To represent the construction equipment exhaust emissions, an area source was used with an emission release height of 20 feet (6 meters).¹² The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, was based on the height the exhaust plume is expected to achieve, not just the height of the top of the exhaust pipe.

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

AERMOD Inputs and Meteorological Data

The modeling used a five-year data set (2013 - 2017) of hourly meteorological data from San Martin Airport prepared for use with the AERMOD model by BAAQMD. Construction emissions were modeled as occurring Monday through Saturday between 7:00 a.m. to 3:00 p.m., per the applicant's provided construction schedule. Terrain elevations were based on USGS National Elevation Data (NED) with a 30-meter resolution. Annual DPM and PM_{2.5} concentrations from construction activities during the 2026 – 2029 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) were used to represent the breathing heights at the nearby single-family residences and worker receptors.¹³

Summary of Construction Health Risk Impacts

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the 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.

¹² California Air Resource Board, 2007. *Proposed Regulation for In-Use Off-Road Diesel Vehicles, Appendix D: Health Risk Methodology*. April. Web: <https://ww3.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm>

¹³ BAAQMD, *Appendix E of the 2022 BAAQMD CEQA Guidelines*. April 2023

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 reference exposure level of 5 µg/m³.

The modeled maximum annual DPM and PM_{2.5} concentrations were identified at nearby sensitive receptors to find the MEI (i.e., where maximum impacts occur). Results of this assessment indicated that the construction MEIs were located at two different receptors (i.e., one for cancer risk and the other for PM_{2.5} exposure). The cancer risk MEI and the annual PM_{2.5} concentration MEI were located on the first floors (5 feet above the ground) of two different single-family homes south of the project site. The mitigated maximum cancer risk occurred when exposure began in 2027. Additionally, the sensitive receptors located south of the site across Oak Court/3rd Street would have health risk levels exceeding significance thresholds. The location of the sensitive receptors exceeding health risk thresholds and nearby sensitive receptors are shown in Figure 1. Note that these receptors are adjacent and typically downwind of the construction site. Table 3 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.

As shown in Table 3, the unmitigated maximum cancer risks from construction activities at the sensitive receptors adjacent and downwind of the site, represented by impacts predicted at the MEIs, would exceed the single-source significance threshold. However, with the implementation of *Mitigation Measure AQ-1* and the City's General Plan Policy NCR 3.16 for dust control, the mitigated cancer risk would no longer exceed the significance threshold. The annual PM_{2.5} concentration and HI from construction activities would be below the single-source significance thresholds with and without mitigation.

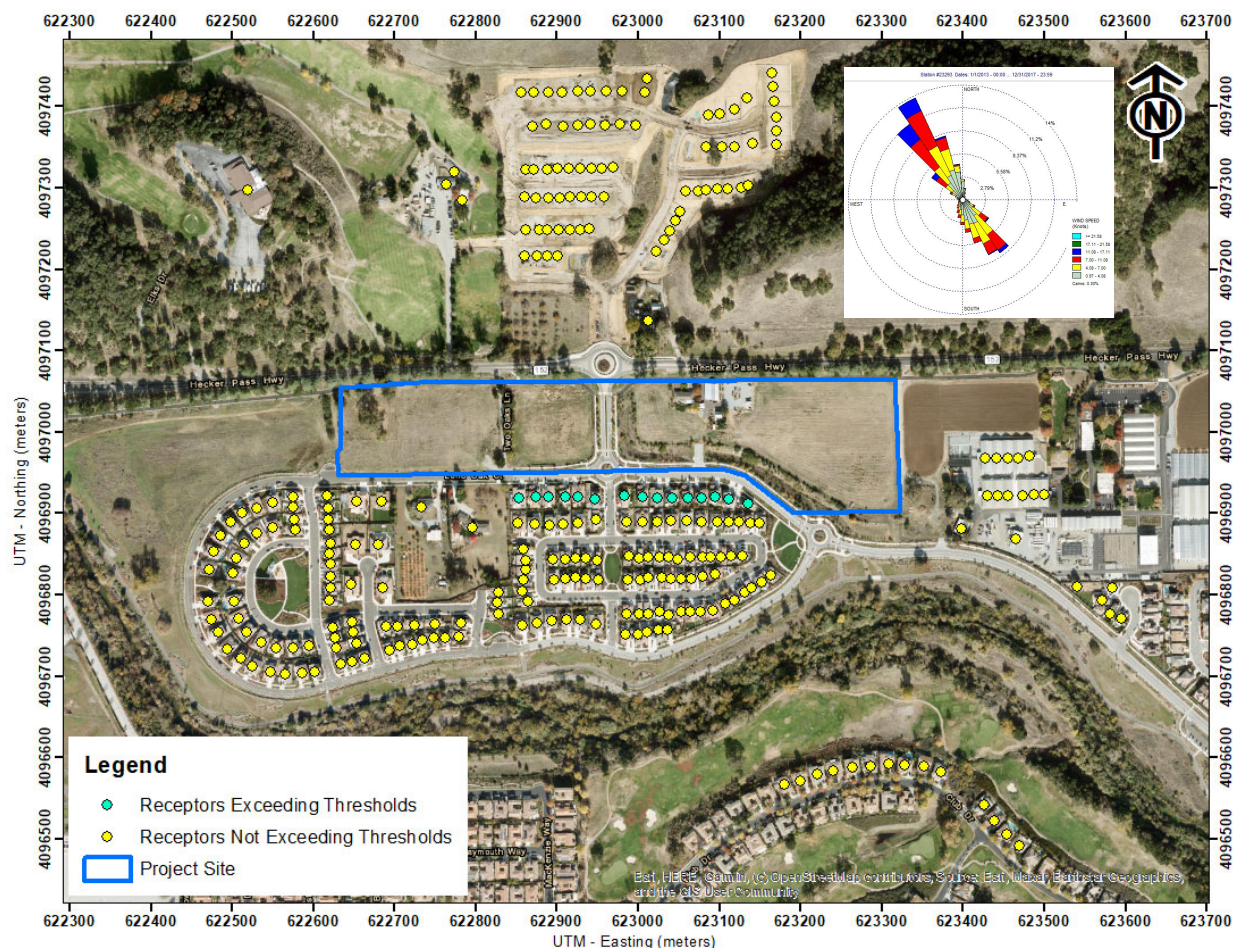
Table 3. Project Risk Impacts at the Off-Site MEIs

Source		Cancer Risk ¹ (per million)	Annual PM _{2.5} ¹ (µg/m ³)	Hazard Index
Project Construction	Unmitigated	10.45 (infant)	0.09	0.01
	Mitigated ²	5.07 (infant)	0.06	<0.01
BAAQMD Single-Source Threshold		>10.0	>0.3	>1.0
Exceed Threshold?	Unmitigated	Yes	<i>No</i>	<i>No</i>
	Mitigated ²	<i>No</i>	<i>No</i>	<i>No</i>

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

² Construction equipment with Tier 4 Final engines during early earth moving phases as Mitigation and City's General Plan Policy NCR 3.16.

Figure 1. Locations of Project Construction Site, Off-Site Sensitive Receptors, Wind Rose, and Sensitive Receptors Exceeding Health Risk Thresholds

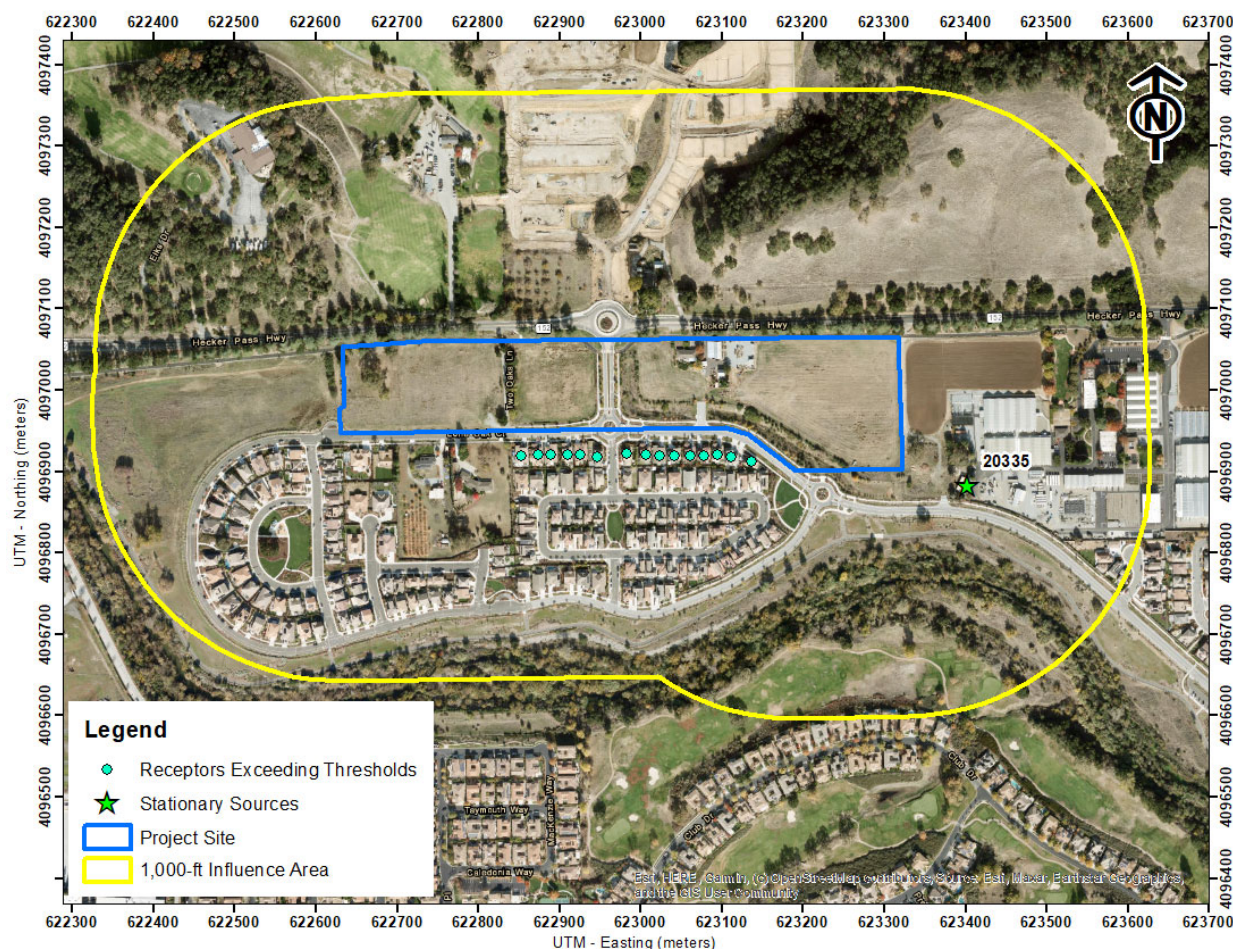


Cumulative Health Risks of all TAC Sources at the Off-Site MEI

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 rail lines, highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of the project area using BAAQMD's geographic information systems (GIS) screening tools indicated that the nearby roadways and stationary sources within the 1,000-foot influence area could have cumulative health risk impacts at the MEIs. The local roadways and one existing stationary source of TACs were identified with the potential to affect the project MEIs. Figure 2 shows the locations of the sources affecting the MEIs within the influence area. Health risk impacts from these sources upon the MEIs are reported in Table 4. Details of the cumulative screening and health risk calculations are included in *Attachment 3*.

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



Nearby Local Roadways

The project site is located near multiple intersecting streets. Cancer risk, PM_{2.5} concentrations, and HI associated with traffic on the nearby roadways were estimated using BAAQMD screening values provided via GIS data files (i.e., raster files).¹⁴ BAAQMD raster files provide screening-level cancer risk, PM_{2.5} concentrations, and HI for roadways within the Bay Area and were produced using AERMOD and 20x20-meter emissions grid. The raster file uses EMFAC2021 data for vehicle emissions and fleet mix for roadways and includes Appendix E of the Air District's CEQA Air Quality Guidance for risk assessment assumptions. These estimates represent conservative risks reflective of 2022 conditions and are meant to provide a conservative estimate of future conditions, which do not reflect the increased proportion of zero emission motor vehicles that will result in lower future emissions.¹⁵ These screening values are considered higher than values that would be obtained with refined modeling methods. These raster data are based on region-wide emissions rather than just those that occur within 1,000 feet of the project. More information regarding the assumptions used to develop the screening layers can be found in

¹⁴ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/health-risk-screening-and-modeling>

¹⁵ BAAQMD, 2022. BAAQMD CEQA Air Quality Guidelines Appendix E, Section 9. April 2023

Sections 6 and 7 in Appendix E of BAAQMD's 2022 CEQA guidance.¹⁶ Screening-level cancer risk, PM_{2.5} concentration, and HI for the roadway impacts at the MEIs are listed in Table 4.

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2022* GIS map website.¹⁷ 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. One source was identified using this tool, an emergency diesel generator. The BAAQMD GIS website provided screening risks and hazards for the diesel generator, therefore a stationary source information request was not submitted. The screening risk and hazard levels provided by BAAQMD for the stationary source was adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines*. Health risk impacts from the stationary source upon the MEIs are reported in Table 4.

Summary of Cumulative Health Risk Impacts at Off-Site MEIs

Table 4 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by project construction (i.e., the MEIs). The project's unmitigated construction cancer risk exceeds its BAAQMD single-source threshold. With the implementation of *Mitigation Measure AQ-1* and the City's General Plan Policy NCR 3.16 for dust control, the project's cancer risk would be reduced to a level below the single-source threshold and would also not exceed the cumulative-source threshold. The annual PM_{2.5} concentration and HI, unmitigated and mitigated, do not exceed the single-source or cumulative-source thresholds.

Table 4. Impacts from Combined Sources at Off-Site MEIs

Source		Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
Project Impacts				
Project Construction	Unmitigated	10.45 (infant)	0.09	0.01
	Mitigated	5.07 (infant)	0.06	<0.01
BAAQMD Single-Source Threshold		>10.0	>0.3	>1.0
Exceed Threshold?	Unmitigated	Yes	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Impacts				
Nearby Roadways – BAAQMD GIS Screening Tool		3.43	0.23	0.02
Syngenta Flowers LLC. (Facility ID #20335, Generator), MEIs at +1,000 feet.		<0.01	-	-
Cumulative Total	Unmitigated	<13.89	<0.32	<0.03
	Mitigated	<8.51	<0.29	<0.03
BAAQMD Cumulative Source Threshold		>100	>0.8	>10.0
Exceed Threshold?	Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>

¹⁶ BAAQMD, 2022. BAAQMD CEQA Air Quality Guidelines Appendix E. April 2023.

¹⁷ BAAQMD, Web:

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

Mitigation Measure AQ-1: Use construction equipment that has low diesel particulate matter exhaust emissions.

Implement a feasible plan to reduce DPM emissions by 15 percent such that increased cancer risk from construction would be reduced below TAC significance levels as follows:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total during the early earth moving phases (e.g., demolition, site preparation, grading, and trenching) shall meet U.S. EPA Tier 4 final emission standards for PM (PM₁₀ and PM_{2.5}), if feasible, otherwise,

Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 15 percent or greater. Elements of the plan could include a combination of some of the following measures:

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

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

Effectiveness of Mitigation Measure AQ-1

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all construction equipment met U.S. EPA Tier 4 final engine standards during the early earth moving phases (e.g., demolition, site preparation, grading, and trenching) and the City's General Plan Policy NCR 3.16/BAAQMD basic BMPs for dust control were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 51 percent to 5.07 per million. As a result, the project's construction risks would be reduced below the BAAQMD single-source threshold.

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

In addition to evaluating health impacts from project construction, a health risk assessment was completed to assess the impact that the existing TAC sources would have on the new proposed sensitive receptors (residents) that the project would introduce. The same TAC sources identified above were used in this health risk assessment.¹⁸ On-site health risk results are listed in Table 5.

¹⁸ 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

Attachment 3 includes the screening information used for TAC source impacts upon the proposed on-site sensitive receptors.

Nearby Local Roadways

The roadway screening impacts for the new project sensitive receptors were conducted in the same manner as described above for the cumulative analysis. Note that the screening data includes risk impacts from all nearby roadways, including roadways beyond 1,000 feet from the project site. The individual roadway impacts, if modeled separately, would have health risk impacts that are individually below the single-source BAAQMD thresholds at the project site. Table 5 shows the health risk impacts for the roadway sources on the project sensitive receptors.

BAAQMD Permitted Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the cumulative analysis. Table 5 shows the health risk impacts for the stationary sources on the project sensitive receptors.

Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the existing TAC sources upon the project site are reported in Table 5. 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 5. Impacts from Combined Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
Single-Source Impacts			
Syngenta Flowers LLC. (Facility ID #20335, Generator), Project Site at 200 feet.	0.04	-	-
<i>BAAQMD Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative-Source Impacts			
Nearby Roadways – BAAQMD GIS Screening Tool	8.81	0.27	0.04
Cumulative Total	8.85	0.27	0.04
<i>BAAQMD Cumulative-Source Threshold</i>	<i>>100</i>	<i>>0.8</i>	<i>>10.0</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

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.

Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction emissions. Also included are any modeling assumptions.

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

Attachment 3 includes the cumulative health screening and calculations from existing sources affecting the construction MEIs and project receptors.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: **Hecker Pass Subdivision, Gilroy**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size	116 Dwelling Units	17.85 total project acres disturbed
	218,154 s.f. residential	
	s.f. retail	
	s.f. office/commercial	
	s.f. other, specify:	
	s.f. parking garage	spaces
	s.f. parking lot	spaces
Construction Days (i.e., M-F)	Mon	to Saturday
Construction Hours	7:00 am	to 3:00 pm

Pile Driving? NO

Project include on-site GENERATOR OR FIRE PUMP during project **OPERATION** (not construction)? NO

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	Start Date:	5/1/2026	Total phase:	20			Overall Import/Export Volumes
		End Date:	5/28/2026					
0	Concrete/Industrial Saws	0	0.73	0	0	0	0	
1	Excavators	158	0.38	8	20	8	9606	
1	Rubber-Tired Dozers	247	0.4	8	20	8	15808	
1	Tractors/Loaders/Backhoes	97	0.37	8	20	8	5742	Demolition Volume
	Other Equipment?							Square footage of buildings to be demolished (or total tons to be hauled)
								7490 square feet or
								Any pavement demolished and hauled? 90 tons
	Site Preparation	Start Date:	6/1/2026	Total phase:	20			
		End Date:	6/26/2026					
	Graders	187	0.41			0	0	
1	Rubber Tired Dozers	247	0.4	8	20	8	15808	
1	Tractors/Loaders/Backhoes	97	0.37	8	20	8	5742	
4	Chainsaw	4	0.37	8	20	8	947	
	Grading / Excavation	Start Date:	7/1/2026	Total phase:	65			Soil Hauling Volume
		End Date:	9/29/2026					
2	Excavators	158	0.38	8	65	8	62442	
2	Graders	187	0.41	8	65	8	79737	
2	Rubber Tired Dozers	247	0.4	8	65	8	102752	
0	Concrete/Industrial Saws	81	0.73			0	0	
2	Tractors/Loaders/Backhoes	97	0.37	8	65	8	37326	
2	Other Equipment? Scrapers	367	0.48	8	65	8	183206	
	Trenching/Foundation	Start Date:	10/1/2026	Total phase:	812			
		End Date:	11/9/2029					
1	Tractor/Loader/Backhoe	97	0.37	8	812	8	233141	
1	Excavators	158	0.38	8	812	8	390020	
	Other Equipment?							
	Building - Exterior	Start Date:	1/1/2027	Total phase:	780			Cement Trucks? 548 Total Round-Trips
		End Date:	12/27/2029					
0	Cranes	231	0.29	0	0	0	0	
1	Forklifts	89	0.2	1.5	780	1.5	20826	
0	Generator Sets	84	0.74	0	0	0	0	
2	Tractors/Loaders/Backhoes	97	0.37	1	780	1	55988	
3	Nail Gun/saw and air compressor	78	0.48	8	780	8	700877	
	Other Equipment?							
	Building - Interior/Architectural Coating	Start Date:	6/1/2027	Total phase:	55			
		End Date:	8/16/2027					
1	Air Compressors/Air gun	78	0.48	6	55	6	12355	
1	Aerial Lift	62	0.31	2	55	2	2114	
	Other Equipment?							
	Paving	Start Date:	1/1/2027	Total phase:	55			
		Start Date:	3/18/2027					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	55	8	48048	
2	Paving Equipment	132	0.36	8	55	8	41818	
2	Rollers	80	0.38	8	55	8	26752	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Additional Phases	Start Date:		Total phase:				
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

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

Complete one sheet for each project component

Hecker Pass Subdivision BMPs Early T4F HRA Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hecker Pass Subdivision BMPs Early T4F HRA
Construction Start Date	5/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	36.4
Location	37.01130508240671, -121.61862156116909
County	Santa Clara
City	Gilroy
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1937
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	116	Dwelling Unit	12.3	218,154	392,909	0.00	347	—

Other Asphalt Surfaces	242	1000sqft	5.56	0.00	0.00	0.00	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-4	Integrate Affordable and Below Market Rate Housing

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.	58.7	39.9	1.59	6.44	8.02	1.46	2.78	4.24	8,743
Mit.	58.6	9.93	0.35	6.44	6.60	0.27	2.78	2.94	8,743
% Reduced	< 0.5%	75%	78%	—	18%	81%	—	31%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.58	17.9	0.64	0.05	0.69	0.59	0.01	0.60	4,844
Mit.	2.40	16.2	0.57	0.05	0.63	0.53	0.01	0.54	4,844
% Reduced	7%	9%	10%	—	9%	10%	—	10%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	9.81	8.72	0.37	1.17	1.53	0.33	0.50	0.83	2,039
Mit.	9.68	7.26	0.20	1.17	1.22	0.19	0.50	0.55	2,039
% Reduced	1%	17%	45%	—	20%	44%	—	34%	—
Annual (Max)	—	—	—	—	—	—	—	—	—

Unmit.	1.79	1.59	0.07	0.21	0.28	0.06	0.09	0.15	338
Mit.	1.77	1.33	0.04	0.21	0.22	0.03	0.09	0.10	338
% Reduced	1%	17%	45%	—	20%	44%	—	34%	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—
Threshold	54.0	54.0	82.0	—	—	54.0	—	—	—
Unmit.	Yes	No	No	—	—	No	—	—	—
Mit.	Yes	No	No	—	—	No	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—
Threshold	54.0	54.0	82.0	—	—	54.0	—	—	—
Unmit.	No	No	No	—	—	No	—	—	—
Mit.	No	No	No	—	—	No	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2026	26.3	39.9	1.59	6.44	8.02	1.46	2.78	4.24	8,743
2027	58.7	11.6	0.30	0.05	0.35	0.28	0.01	0.29	2,570
2028	1.32	9.38	0.22	0.04	0.26	0.20	0.01	0.21	2,234
2029	1.27	9.17	0.19	0.04	0.23	0.17	0.01	0.18	2,232
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2026	0.29	2.27	0.09	< 0.005	0.10	0.08	< 0.005	0.09	902
2027	2.58	17.9	0.64	0.05	0.69	0.59	0.01	0.60	4,844
2028	1.31	9.40	0.22	0.04	0.26	0.20	0.01	0.21	2,232
2029	1.26	9.18	0.19	0.04	0.23	0.17	0.01	0.18	2,230

Average Daily	—	—	—	—	—	—	—	—	—
2026	2.29	8.72	0.37	1.17	1.53	0.33	0.50	0.83	1,893
2027	9.81	8.47	0.25	0.03	0.28	0.23	0.01	0.24	2,039
2028	0.94	6.72	0.15	0.03	0.18	0.14	0.01	0.15	1,599
2029	0.87	6.30	0.13	0.03	0.16	0.12	0.01	0.12	1,491
Annual	—	—	—	—	—	—	—	—	—
2026	0.42	1.59	0.07	0.21	0.28	0.06	0.09	0.15	313
2027	1.79	1.55	0.05	0.01	0.05	0.04	< 0.005	0.04	338
2028	0.17	1.23	0.03	0.01	0.03	0.03	< 0.005	0.03	265
2029	0.16	1.15	0.02	0.01	0.03	0.02	< 0.005	0.02	247

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2026	25.4	5.27	0.35	6.44	6.60	0.27	2.78	2.94	8,743
2027	58.6	9.93	0.23	0.05	0.28	0.22	0.01	0.23	2,570
2028	1.15	7.83	0.16	0.04	0.20	0.15	0.01	0.16	2,234
2029	1.10	7.69	0.14	0.04	0.18	0.13	0.01	0.14	2,232
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2026	0.10	0.44	0.02	< 0.005	0.02	0.02	< 0.005	0.02	902
2027	2.40	16.2	0.57	0.05	0.63	0.53	0.01	0.54	4,844
2028	1.14	7.84	0.16	0.04	0.20	0.15	0.01	0.16	2,232
2029	1.10	7.71	0.14	0.04	0.18	0.13	0.01	0.14	2,230
Average Daily	—	—	—	—	—	—	—	—	—
2026	1.58	1.14	0.05	1.17	1.22	0.05	0.50	0.55	1,893
2027	9.68	7.26	0.20	0.03	0.23	0.19	0.01	0.19	2,039

2028	0.82	5.61	0.11	0.03	0.14	0.11	0.01	0.11	1,599
2029	0.77	5.40	0.10	0.03	0.12	0.09	0.01	0.10	1,491
Annual	—	—	—	—	—	—	—	—	—
2026	0.29	0.21	0.01	0.21	0.22	0.01	0.09	0.10	313
2027	1.77	1.33	0.04	0.01	0.04	0.03	< 0.005	0.04	338
2028	0.15	1.02	0.02	0.01	0.03	0.02	< 0.005	0.02	265
2029	0.14	0.99	0.02	0.01	0.02	0.02	< 0.005	0.02	247

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	11.1	0.48	—	0.48	0.45	—	0.45	1,821
Demolition	—	—	—	0.36	0.36	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.61	0.03	—	0.03	0.02	—	0.02	99.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.5

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)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	23.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.35
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	1.27
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.21

3.2. Demolition (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.89	0.03	—	0.03	0.03	—	0.03	1,821
Demolition	—	—	—	0.36	0.36	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	99.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.5
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)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	23.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.35
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	1.27
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.21

3.3. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	26.2	10.5	0.76	—	0.76	0.65	—	0.65	1,306
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	0.58	0.04	—	0.04	0.04	—	0.04	71.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.11	0.01	—	0.01	0.01	—	0.01	11.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.71
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	0.12
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 (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	25.4	1.12	0.35	—	0.35	0.27	—	0.27	1,306
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.39	0.06	0.02	—	0.02	0.01	—	0.01	71.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.71
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	0.12
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 (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.02	38.8	1.58	—	1.58	1.46	—	1.46	8,372
Dust From Material Movement	—	—	—	6.36	6.36	—	2.76	2.76	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.91	0.28	—	0.28	0.26	—	0.26	1,491
Dust From Material Movement	—	—	—	1.13	1.13	—	0.49	0.49	—
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	1.26	0.05	—	0.05	0.05	—	0.05	247
Dust From Material Movement	—	—	—	0.21	0.21	—	0.09	0.09	—
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	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	22.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	1.15	< 0.005	0.06	0.06	< 0.005	0.02	0.02	348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	62.1
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3

3.6. Grading (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	4.10	0.16	—	0.16	0.16	—	0.16	8,372

Dust From Material Movement	—	—	—	6.36	6.36	—	2.76	2.76	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.73	0.03	—	0.03	0.03	—	0.03	1,491
Dust From Material Movement	—	—	—	1.13	1.13	—	0.49	0.49	—
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	0.13	0.01	—	0.01	0.01	—	0.01	247
Dust From Material Movement	—	—	—	0.21	0.21	—	0.09	0.09	—
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	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	22.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	1.15	< 0.005	0.06	0.06	< 0.005	0.02	0.02	348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	62.1

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3

3.7. Building Exterior (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	7.42	0.17	—	0.17	0.16	—	0.16	1,245
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	1.00	7.42	0.17	—	0.17	0.16	—	0.16	1,245
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	0.71	5.30	0.12	—	0.12	0.11	—	0.11	889
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	0.97	0.02	—	0.02	0.02	—	0.02	147
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	0.11	0.03	0.00	0.03	0.03	0.00	0.01	0.01	37.1

Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	35.0
Vendor	0.01	0.16	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	52.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	25.2
Vendor	< 0.005	0.11	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	37.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.17
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Exterior (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	7.42	0.17	—	0.17	0.16	—	0.16	1,245
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	1.00	7.42	0.17	—	0.17	0.16	—	0.16	1,245
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	0.71	5.30	0.12	—	0.12	0.11	—	0.11	889
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	0.97	0.02	—	0.02	0.02	—	0.02	147
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	0.11	0.03	0.00	0.03	0.03	0.00	0.01	0.01	37.1
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	35.0
Vendor	0.01	0.16	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	52.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	25.2
Vendor	< 0.005	0.11	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	37.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.17
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Exterior (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	7.21	0.14	—	0.14	0.13	—	0.13	1,245
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	0.94	7.21	0.14	—	0.14	0.13	—	0.13	1,245
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	0.68	5.16	0.10	—	0.10	0.09	—	0.09	892
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.94	0.02	—	0.02	0.02	—	0.02	148
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	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	36.1
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	34.4
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.0

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.8
Vendor	< 0.005	0.11	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	36.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.11
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Exterior (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	7.21	0.14	—	0.14	0.13	—	0.13	1,245
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	0.94	7.21	0.14	—	0.14	0.13	—	0.13	1,245
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	0.68	5.16	0.10	—	0.10	0.09	—	0.09	892
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.12	0.94	0.02	—	0.02	0.02	—	0.02	148
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	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	36.1
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	50.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	34.4
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	51.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.8
Vendor	< 0.005	0.11	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	36.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.11
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Exterior (2029) - Unmitigated

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

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

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Off-Road Equipment	0.90	7.08	0.12	—	0.12	0.11	—	0.11	1,245
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	0.90	7.08	0.12	—	0.12	0.11	—	0.11	1,245
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	0.64	5.00	0.08	—	0.08	0.08	—	0.08	879
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.91	0.02	—	0.02	0.01	—	0.01	146
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	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	35.5
Vendor	0.01	0.14	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09	0.03	0.00	0.03	0.03	0.00	0.01	0.01	33.8
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.1
Vendor	< 0.005	0.10	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.99
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Exterior (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.08	0.12	—	0.12	0.11	—	0.11	1,245
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	0.90	7.08	0.12	—	0.12	0.11	—	0.11	1,245
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	0.64	5.00	0.08	—	0.08	0.08	—	0.08	879
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.91	0.02	—	0.02	0.01	—	0.01	146
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	0.10	0.03	0.00	0.03	0.03	0.00	0.01	0.01	35.5

Vendor	0.01	0.14	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09	0.03	0.00	0.03	0.03	0.00	0.01	0.01	33.8
Vendor	0.01	0.15	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	49.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.07	0.02	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.1
Vendor	< 0.005	0.10	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.99
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	8.14	0.38	—	0.38	0.35	—	0.35	2,598
Paving	0.26	—	—	—	—	—	—	—	—
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	1.23	0.06	—	0.06	0.05	—	0.05	391
Paving	0.04	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	64.8
Paving	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	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Paving (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
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Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	8.14	0.38	—	0.38	0.35	—	0.35	2,598
Paving	0.26	—	—	—	—	—	—	—	—
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	1.23	0.06	—	0.06	0.05	—	0.05	391
Paving	0.04	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	64.8
Paving	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	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Interior (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	1.88	0.04	—	0.04	0.04	—	0.04	327
Architectural Coatings	57.1	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.28	0.01	—	0.01	0.01	—	0.01	49.3
Architectural Coatings	8.60	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.17
Architectural Coatings	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)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.06
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	0.18
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. Building Interior (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	1.88	0.04	—	0.04	0.04	—	0.04	327
Architectural Coatings	57.1	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.28	0.01	—	0.01	0.01	—	0.01	49.3
Architectural Coatings	8.60	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.17
Architectural Coatings	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)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.06
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	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Foundation (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	0.27	2.26	0.09	—	0.09	0.08	—	0.08	897
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.41	0.02	—	0.02	0.02	—	0.02	162
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	26.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.31
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	0.77
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	0.13

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Foundation (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	0.08	0.44	0.02	—	0.02	0.02	—	0.02	897
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	162
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	26.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.31
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	0.77
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	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Foundation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.12	0.08	—	0.08	0.08	—	0.08	897
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	0.26	2.12	0.08	—	0.08	0.08	—	0.08	897
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	0.19	1.52	0.06	—	0.06	0.05	—	0.05	641
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	0.28	0.01	—	0.01	0.01	—	0.01	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Foundation (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	897
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	897
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	0.31	0.01	—	0.01	0.01	—	0.01	641
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	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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3.21. Foundation (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	1.99	0.07	—	0.07	0.07	—	0.07	898
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	0.25	1.99	0.07	—	0.07	0.07	—	0.07	898
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.43	0.05	—	0.05	0.05	—	0.05	643
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	0.26	0.01	—	0.01	0.01	—	0.01	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.97
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	0.49
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

3.22. Foundation (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	898
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	898
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	0.32	0.01	—	0.01	0.01	—	0.01	643
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	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.97
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	0.49
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

3.23. Foundation (2029) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	1.92	0.07	—	0.07	0.06	—	0.06	897
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	0.25	1.92	0.07	—	0.07	0.06	—	0.06	897
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	0.15	1.17	0.04	—	0.04	0.04	—	0.04	550
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	0.21	0.01	—	0.01	0.01	—	0.01	91.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.41
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

3.24. Foundation (2029) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	897
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.44	0.02	—	0.02	0.02	—	0.02	897
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.27	0.01	—	0.01	0.01	—	0.01	550
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	91.0

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
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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	5/1/2026	5/28/2026	5.00	20.0	—
Site Preparation	Site Preparation	6/1/2026	6/26/2026	5.00	20.0	—
Grading	Grading	7/1/2026	9/29/2026	5.00	65.0	—
Building Exterior	Building Construction	1/1/2027	12/27/2029	5.00	780	—
Paving	Paving	1/1/2027	3/18/2027	5.00	55.0	—
Building Interior	Architectural Coating	6/1/2027	8/16/2027	5.00	55.0	—

Foundation	Trenching	10/1/2026	11/9/2029	5.00	812	—
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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	1.00	8.00	247	0.40
Demolition	Excavators	Diesel	Average	1.00	8.00	158	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	97.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	247	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	97.0	0.37
Site Preparation	Concrete/Industrial Saws	Gasoline	Average	4.00	8.00	4.00	0.37
Grading	Graders	Diesel	Average	2.00	8.00	187	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	158	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	97.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	367	0.48
Grading	Rubber Tired Dozers	Diesel	Average	2.00	8.00	247	0.40
Building Exterior	Forklifts	Diesel	Average	1.00	1.50	89.0	0.20
Building Exterior	Tractors/Loaders/Back hoes	Diesel	Average	2.00	1.00	97.0	0.37
Building Exterior	Air Compressors	Diesel	Average	3.00	8.00	78.0	0.48
Paving	Pavers	Diesel	Average	2.00	8.00	130	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	132	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	97.0	0.38
Building Interior	Air Compressors	Diesel	Average	1.00	6.00	78.0	0.48
Building Interior	Aerial Lifts	Diesel	Average	1.00	2.00	62.0	0.31

Foundation	Tractors/Loaders/Back	Diesel	Average	1.00	8.00	97.0	0.37
Foundation	Excavators	Diesel	Average	1.00	8.00	158	0.38

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 Final	1.00	8.00	247	0.40
Demolition	Excavators	Diesel	Tier 4 Final	1.00	8.00	158	0.38
Demolition	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	97.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	247	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	97.0	0.37
Site Preparation	Concrete/Industrial Saws	Gasoline	Average	4.00	8.00	4.00	0.37
Grading	Graders	Diesel	Tier 4 Final	2.00	8.00	187	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	158	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	97.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	367	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	247	0.40
Building Exterior	Forklifts	Diesel	Average	1.00	1.50	89.0	0.20
Building Exterior	Tractors/Loaders/Back hoes	Diesel	Average	2.00	1.00	97.0	0.37
Building Exterior	Air Compressors	Diesel	Average	3.00	8.00	78.0	0.48
Paving	Pavers	Diesel	Average	2.00	8.00	130	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	132	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	97.0	0.38
Building Interior	Air Compressors	Diesel	Average	1.00	6.00	78.0	0.48
Building Interior	Aerial Lifts	Diesel	Average	1.00	2.00	62.0	0.31

Foundation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	1.00	8.00	97.0	0.37
Foundation	Excavators	Diesel	Tier 4 Final	1.00	8.00	158	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	4.35	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	25.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	65.3	1.00	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	5.00	1.00	LDA,LDT1,LDT2
Foundation	Vendor	—	1.00	HHDT,MHDT
Foundation	Hauling	0.00	1.00	HHDT
Foundation	Onsite truck	—	—	HHDT
Building Exterior	—	—	—	—

Building Exterior	Worker	41.8	1.00	LDA,LDT1,LDT2
Building Exterior	Vendor	12.4	1.00	HHDT,MHDT
Building Exterior	Hauling	0.00	1.00	HHDT
Building Exterior	Onsite truck	—	—	HHDT
Building Interior	—	—	—	—
Building Interior	Worker	8.35	1.00	LDA,LDT1,LDT2
Building Interior	Vendor	—	1.00	HHDT,MHDT
Building Interior	Hauling	0.00	1.00	HHDT
Building Interior	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	0.00	1.00	HHDT
Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	1.00	LDA,LDT1,LDT2
Demolition	Vendor	—	1.00	HHDT,MHDT
Demolition	Hauling	4.35	1.00	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	1.00	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.00	HHDT,MHDT
Site Preparation	Hauling	0.00	1.00	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	25.0	1.00	LDA,LDT1,LDT2
Grading	Vendor	—	1.00	HHDT,MHDT
Grading	Hauling	65.3	1.00	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	5.00	1.00	LDA,LDT1,LDT2
Foundation	Vendor	—	1.00	HHDT,MHDT
Foundation	Hauling	0.00	1.00	HHDT
Foundation	Onsite truck	—	—	HHDT
Building Exterior	—	—	—	—
Building Exterior	Worker	41.8	1.00	LDA,LDT1,LDT2
Building Exterior	Vendor	12.4	1.00	HHDT,MHDT
Building Exterior	Hauling	0.00	1.00	HHDT
Building Exterior	Onsite truck	—	—	HHDT
Building Interior	—	—	—	—
Building Interior	Worker	8.35	1.00	LDA,LDT1,LDT2
Building Interior	Vendor	—	1.00	HHDT,MHDT
Building Interior	Hauling	0.00	1.00	HHDT
Building Interior	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	1.00	LDA,LDT1,LDT2
Paving	Vendor	—	1.00	HHDT,MHDT
Paving	Hauling	0.00	1.00	HHDT
Paving	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)
Building Interior	441,762	147,254	0.00	0.00	14,528

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	7,490	—
Grading	5,811	28,137	260	0.00	—
Paving	0.00	0.00	0.00	0.00	6.84

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
Single Family Housing	1.28	0%
Other Asphalt Surfaces	5.56	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005

2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005
2029	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.6	annual days of extreme heat
Extreme Precipitation	7.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	20.5	annual hectares burned

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

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

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

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

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

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

6.3. Adjusted Climate Risk Scores

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

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

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	24.9
AQ-PM	4.29
AQ-DPM	0.88
Drinking Water	63.5
Lead Risk Housing	9.89
Pesticides	70.5
Toxic Releases	14.7
Traffic	7.49
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	83.0
Solid Waste	35.7
Sensitive Population	—
Asthma	33.0
Cardio-vascular	33.3
Low Birth Weights	47.1
Socioeconomic Factor Indicators	—
Education	7.82
Housing	29.2
Linguistic	9.46
Poverty	9.46
Unemployment	11.9

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	78.94264083
Employed	52.68831002
Median HI	92.67291159
Education	—
Bachelor's or higher	78.36519954
High school enrollment	100
Preschool enrollment	17.00243809
Transportation	—
Auto Access	88.68215065
Active commuting	53.11176697
Social	—
2-parent households	92.73707173
Voting	96.88181702
Neighborhood	—
Alcohol availability	92.04414218
Park access	17.45155909
Retail density	2.797382266
Supermarket access	9.649685615
Tree canopy	96.20171949
Housing	—
Homeownership	92.00564609
Housing habitability	92.26228667
Low-inc homeowner severe housing cost burden	68.95932247
Low-inc renter severe housing cost burden	89.18259977

Uncrowded housing	71.88502502
Health Outcomes	—
Insured adults	89.15693571
Arthritis	0.0
Asthma ER Admissions	58.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	73.2
Cognitively Disabled	78.9
Physically Disabled	86.7
Heart Attack ER Admissions	62.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	53.7
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	44.4
SLR Inundation Area	0.0

Children	84.9
Elderly	18.2
English Speaking	88.9
Foreign-born	13.5
Outdoor Workers	52.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	94.6
Traffic Density	6.7
Traffic Access	23.0
Other Indices	—
Hardship	17.6
Other Decision Support	—
2016 Voting	92.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	9.00
Healthy Places Index Score for Project Location (b)	87.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Adjusted to match project plans dated 02/15/2024
Construction: Construction Phases	Adjusted to match construction schedule on the data request form provided by the applicant.
Construction: Off-Road Equipment	Adjusted to match construction data form provided by the applicant.
Construction: Dust From Material Movement	Adjusted to match construction data form provided by the applicant.
Operations: Vehicle Data	Trip rate adjusted to match traffic analysis
Operations: Water and Waste Water	No septic
Construction: On-Road Fugitive Dust	Air District BMPs - 15 mph.
Construction: Trips and VMT	HRA run = 1 mile for localized emissions.

**Attachment 2: Project Construction Emissions and Health Risk
Calculations**

Construction Health Risk Assessment and Calculations

Hecker Pass Subdivision, Gilroy, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2026	Construction	0.0670	CON_DPM	134.0	0.05370	6.77E-03	84,666	7.99E-08
2027	Construction	0.0452	CON_DPM	90.4	0.03620	4.56E-03	84,666	5.39E-08
2028	Construction	0.0281	CON_DPM	56.2	0.02253	2.84E-03	84,666	3.35E-08
2029	Construction	0.0231	CON_DPM	46.1	0.01847	2.33E-03	84,666	2.75E-08
Total		0.1634		326.7	0.1309	0.0165		

Construction Hours

hr/day = 8 (Mon - Sat, 7am - 3pm)

days/yr = 312

hours/year = 2496

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2026	Construction	0.0097	CON_DPM	19.3	0.00774	9.76E-04	84,666	1.15E-08
2027	Construction	0.0367	CON_DPM	73.5	0.02944	3.71E-03	84,666	4.38E-08
2028	Construction	0.0208	CON_DPM	41.6	0.01667	2.10E-03	84,666	2.48E-08
2029	Construction	0.0173	CON_DPM	34.7	0.01390	1.75E-03	84,666	2.07E-08
Total		0.0845		169.1	0.0677	0.0085		

Construction Hours

hr/day = 8 (Mon - Sat, 7am - 3pm)

days/yr = 312

hours/year = 2496

Hecker Pass Subdivision, Gilroy, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction		Area	PM2.5 Emissions				Modeled Area	PM2.5 Emission Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2026	Construction	CON_FUG	0.0910	182.1	0.07295	9.19E-03	84,666	1.09E-07
2027	Construction	CON_FUG	0.0015	2.9	0.00117	1.47E-04	84,666	1.74E-09
2028	Construction	CON_FUG	0.0014	2.71	0.00109	1.37E-04	84,666	1.62E-09
2029	Construction	CON_FUG	0.0013	2.65	0.00106	1.34E-04	84,666	1.58E-09
Total			0.0952	190.4	0.0763	0.0096		

Construction Hours

hr/day = 8 (Mon - Sat, 7am - 3pm)
 days/yr = 312
 hours/year = 2496

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

Construction		Area	PM2.5 Emissions				Modeled Area	PM2.5 Emission Rate
Year	Activity	Source	(ton/year)	(lb/yr)	(lb/hr)	(g/s)	(m ²)	g/s/m ²
2026	Construction	CON_FUG	0.0910	182.1	0.07295	9.19E-03	84,666	1.09E-07
2027	Construction	CON_FUG	0.0015	2.9	0.00117	1.47E-04	84,666	1.74E-09
2028	Construction	CON_FUG	0.0014	2.71	0.00109	1.37E-04	84,666	1.62E-09
2029	Construction	CON_FUG	0.0013	2.65	0.00106	1.34E-04	84,666	1.58E-09
Total			0.0952	190.4	0.0763	0.0096		

Construction Hours

hr/day = 8 (Mon - Sat, 7am - 3pm)
 days/yr = 312
 hours/year = 2496

Hecker Pass Subdivision, Gilroy, CA - Construction Health Impact Summary

Maximum Impacts at MEI Residential Location - Without Mitigation

Emissions Year						
	Maximum Concentrations		Cancer Risk* (per million)		Hazard Index	Maximum Annual PM2.5 Concentration*
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m ³)	(µg/m ³)	Infant/Child	Adult	(-)	(µg/m ³)
2026	0.0339	0.0530	6.03	0.10	0.01	0.09
2027	0.0229	0.0009	3.75	0.07	0.005	0.02
2028	0.0142	0.0008	0.37	0.04	0.003	0.02
2029	0.0117	0.0008	0.30	0.03	0.002	0.01
Total	-	-	10.45	0.24	-	-
Maximum	0.0339	0.0530	-	-	0.01	0.09

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.

Maximum Impacts at MEI Residential Location - With Mitigation

Emissions Year						
	Maximum Concentrations		Cancer Risk* (per million)		Hazard Index	Maximum Annual PM2.5 Concentration* (µg/m ³)
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m ³)	(µg/m ³)	Infant/Child	Adult	(-)	
2026	0.0049	0.0530	0.07	0.01	0.001	0.06
2027	0.0186	0.0009	3.05	0.05	0.004	0.02
2028	0.0105	0.0008	1.73	0.03	0.002	0.01
2029	0.0088	0.0008	0.23	0.03	0.002	0.01
Total	-	-	5.07	0.12	-	-
Maximum	0.0186	0.0530	-	-	0.004	0.06

* Maximum cancer risk and maximum PM2.5 concentration occur at different receptors.

- Tier 4 Final Engines and basic BMPs Mitigation

Hecker Pass Subdivision, Gilroy, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

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

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

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Maximum		
			DPM Conc (ug/m3)		Age Sensitivity Factor		Modeled DPM Conc (ug/m3)		Age Sensitivity Factor		Hazard Index	Fugitive PM2.5	Total PM2.5
			Year	Annual			Year	Annual					
0	0.25	-0.25 - 0*	2026	0.0339	10	0.46	2026	0.0339	-	-			
1	1	0 - 1	2026	0.0339	10	5.56	2026	0.0339	1	0.10	0.01	0.05	0.09
2	1	1 - 2	2027	0.0229	10	3.75	2027	0.0229	1	0.07	0.005	0.001	0.02
3	1	2 - 3	2028	0.0142	3	0.37	2028	0.0142	1	0.04	0.003	0.001	0.02
4	1	3 - 4	2029	0.0117	3	0.30	2029	0.0117	1	0.03	0.002	0.001	0.01
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						10.45				0.24			

* Third trimester of pregnancy

Hecker Pass Subdivision, Gilroy, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

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

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

ASF = Age sensitivity factor for specified age group

ED = Exposure duration (years)

AT = Averaging time for lifetime cancer risk (years)

FAH = Fraction of time spent at home (unitless)

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

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

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

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult
			DPM Conc (ug/m3)		Age Sensitivity Factor	Cancer Risk (per million)	Modeled		Age Sensitivity Factor	Cancer Risk (per million)
			Year	Annual			Year	Annual		
0	0.25	-0.25 - 0*	2026	0.0049	10	0.07	2026	0.0049	1	0.01
1	1	0 - 1	2027	0.0186	10	3.05	2027	0.0186	1	0.05
2	1	1 - 2	2028	0.0105	10	1.73	2028	0.0105	1	0.03
3	1	2 - 3	2029	0.0088	3	0.23	2029	0.0088	1	0.03
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						5.07				0.12

* Third trimester of pregnancy

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.001	0.05	0.06
0.004	0.001	0.02
0.002	0.001	0.01
0.002	0.001	0.01

Attachment 3: Cumulative Screening Information and Calculations

BAAQMD RASTER Screening Data – Roadway Cancer Risk Impacts at the Cancer Risk MEI



BAAQMD RASTER Screening Data – Roadway PM_{2.5} Concentration Impacts at the PM_{2.5} MEI



BAAQMD RASTER Screening Data – Roadway Hazard Index Impacts at the Cancer Risk MEI



BAAQMD RASTER Screening Data – Maximum Roadway Cancer Risk Impacts at the Project Site



BAAQMD RASTER Screening Data – Maximum Roadway PM_{2.5} Concentration Impacts at the Project Site



BAAQMD RASTER Screening Data – Maximum Roadway Hazard Index Impacts at the Project Site





BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

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

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

[Click here for guidance on conducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.](#)

[Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.](#)

Table A: Requester Contact Information

Date of Request	10/23/2024
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	Hecker Pass Subdivision
Address	57 ; 3# #5 : 73#K.h.fnhu#B.dv#Jg
City	Gilroy
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	116
Comments:	

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

1. Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.
2. Download and install the free program Google Earth, <http://www.google.com/earth/download/ge/>, and then download the county specific Google Earth stationary source application files from the District's website, <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.
5. List the stationary source information in **Table B** - Use section only.
6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.
7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

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

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

Table B: Google Earth data											Project MEIs			
Distance from Receptor (feet) or MEI ¹	Plant No.	Facility Name	Address	Cancer Risk ²	Hazard Risk ²	PM _{2.5} ²	Source No. ³	Type of Source ⁴	Fuel Code ⁵	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
+1000	20335	Syngenta Flowers LLC	2280 Hecker Pass Rd	0.09	--	--		Generator		2022 Dataset	0.04	0.004	#VALUE!	#VALUE!

Footnotes:

- Maximally exposed individual
- These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
- Each plant may have multiple permits and sources.
- Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
- Fuel codes: 98 = diesel, 189 = Natural Gas.
- If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
-
- Engineer who completed the HRSA. For District purposes only.
- All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
- The HRSA "Chronic Health" number represents the Hazard Index.
- Further information about common sources:
 - Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
 - The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
 - 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.
 - 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
 - Gas stations can be adjusted using BAAQMD's Gas Station Distance Multplier worksheet.
 - Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
 - This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

Project Site					
Distance from Receptor (feet) or MEI ¹	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
200	20335	0.41	0.04	#VALUE!	#VALUE!

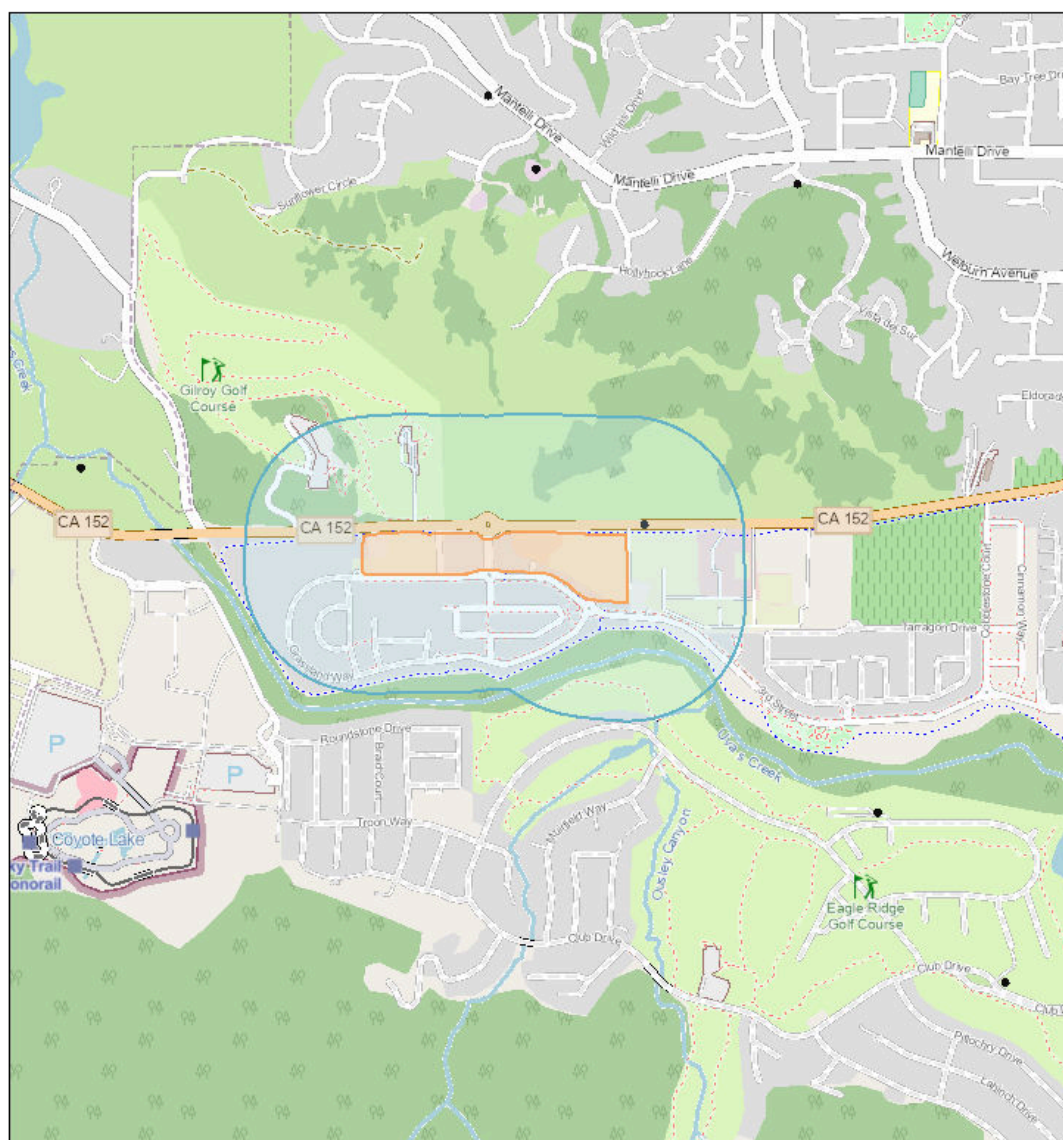


Screening Report

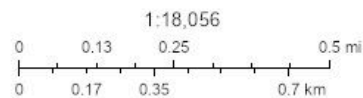
Area of Interest (AOI) Information

Area : 9,476,233.48 ft²

Oct 23 2024 15:13:23 Pacific Daylight Time



- Permitted Stationary Sources



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Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	1	N/A	N/A

Permitted Stationary Sources

#	Address	Cancer_Ris	Chronic_Ha	City	County
1	2280 Hecker Pass Rd	0.09	0.00	Gilroy	Santa Clara

#	Details	Facility_I	Facility_N	Latitude	Longitude
1	Generator	20335	Syngenta Flowers LLC	37.01	-121.61

#	NAICS	NAICS_Indu	NAICS_Sect	NAICS_Subs	PM25
1	111421	Nursery and Tree Production	Agriculture, Forestry, Fishing and Hunting	Crop Production	0.00

#	State	Zip	Count
1	CA	95020	1

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