Appendix A:
Air Quality, Greenhouse Gas Emissions, and Energy Impacts Analysis

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Memorandum

Date: September 29, 2021
Revised: January 5, 2022
Revised: February 18, 2022

To: Brian Sorensen, Development Manager–West Coast, Insite Property Group

From: Philip Ault, Director of Noise and Air Quality, FirstCarbon Solutions
Lance Park, Air Quality Specialist, FirstCarbon Solutions

Subject: Air Quality and Greenhouse Gas Emissions and Energy Impacts Analysis for the Piercy Road Warehouse Project, City of San José, Santa Clara County, California

This memorandum summarizes the finding of the Initial Study for the proposed project located on 455 Piercy Road in the City of San José, California. Recommended measures to avoid or minimize potential project-related impacts to sensitive receptors in the project vicinity are included as appropriate.

PROJECT UNDERSTANDING

The proposed project involves one new speculative light industrial building. The proposed structure would include 121,580 square feet, consisting of approximately 116,580 square feet of warehouse space and approximately 5,000 square feet of mezzanine office space. The maximum height of the proposed structure would be 48 feet. Operations would include dry storage only, with no option for the conversion to cold storage in the future.

The anticipated use involves high-cube storage and distribution with ancillary office and may include interior light manufacturing operations as permitted by the zoning code. The proposed project would include 17 loading docks, 132 auto parking stalls (including five accessible stalls and 11 stalls for clean air vehicles), 42 trailer parking stalls, three motorcycle parking spaces, and 12 bicycle parking spaces. Site ingress and egress would be at the southwestern area of the project site, via Piercy Road.

Several non-native trees would be removed from the project site. However, no native trees are proposed for removal as part of the project. Numerous trees, shrubs, and ground cover plants would be planted along the project site perimeter. Three bioretention basins would be constructed: one in the northwestern portion of the site, and two in the southeastern portion, in accordance with the City approved landscape plan.

The proposed project is expected to employ approximately 80 full-time employees. Operations would take place from 7:00 a.m. to 7:00 p.m. It is estimated that about one-third of the project trips originating from the west via Silver Creek Valley Road would utilize Hellyer Avenue to access the site and about two-thirds would utilize Piercy Road to access the site, since Piercy Road provides a slightly more direct route.

The project anticipates 10–15 container parking spaces would likely be occupied at any one time which would result in up to 30 daily one-way truck trips (15 round-trip trips). The anticipated port of product origin for truck trips would be the Port of Oakland, approximately 49.2 miles from the project site.

SETTING AND REGULATORY FRAMEWORK

Air Quality Regulatory Framework

The proposed project is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area Air Basin (Air Basin). Within the Air Basin, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter of 2.5 microns and smaller ($PM_{2.5}$) and 10 microns and smaller (PM_{10}), and lead (Pb) have been established by both the State of California and the United States Environmental Protection Agency (EPA). The State has also set standards for sulfate concentrations and atmospheric visibility.

The EPA and the California Air Resources Board (ARB) designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The Air Basin is classified as a nonattainment area for the State ozone and particulate matter standards and as nonattainment for federal ozone 8-hour and $PM_{2.5}$ 24-hour standards. This indicates that the BAAQMD has not achieved compliance with these State and federal standards in the Air Basin.

For the California Environmental Quality Act (CEQA), the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the proposed project's significance impact determinations related to air quality.

Thresholds of Significance

The significance criteria established or recommended by the BAAQMD were used to make CEQA significance determinations related to the proposed project's impacts on air quality. The BAAQMD has adopted thresholds of significance for construction and operation.

Table 1 shows the thresholds of significance. In developing the thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions.

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction Thresholds Average Daily Emissions (pounds/day)	Operational Thresholds	
		Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Criteria Air Pollutants			
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance, other Best Management Practices (BAAQMD Basic Construction Mitigation Measures)	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	$\geq$ 10 per one million	$\geq$ 10 per one million	
Chronic or 1-hour Acute Hazard Index	$\geq$ 1.0	$\geq$ 1.0	
Incremental annual average $PM_{2.5}$	$\geq$ 0.3 µg/m^3	$\geq$ 0.3 µg/m^3	
Health Risks and Hazards for Sensitive Receptors (Cumulative from All Sources within 1,000-Foot Zone of Influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	$\geq$ 100 per 1 million		
Chronic Hazard Index	$\geq$ 10.0		
Annual Average $PM_{2.5}$	$\geq$ 0.8 µg/m^3		

Notes:
µg/m^3 = micrograms per cubic meter
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 µm or less
$PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5 µm or less
ppm = parts per million
ROG = reactive organic gases
Source: Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed May 25, 2021.

City of San José Building Reach Code

In 2019, the San José City Council approved Ordinance No. 30311 and adopted Reach Code Ordinances (Reach Code) to reduce energy-related greenhouse gas (GHG) emissions consistent with the goals of Climate Smart San José. The Reach Code applies to new construction projects in San José. It requires new residential construction to be outfitted with entirely electric fixtures. Mixed-fuel buildings (i.e., use of natural gas) are required to demonstrate increased energy efficiency through a higher Energy Design Ratings and be electrification ready. In addition, the Reach Code requires electric vehicle (EV) charging infrastructure for all building types (above current California Green Building Code Standards Code [CALGreen] requirements), and solar readiness for nonresidential buildings.

Private Sector Green Building Policy (Council Policy 6-32)

At the local level, the City of San José sets green building standards for municipal development. All projects are required to submit a Leadership in Energy and Environmental Design (LEED™), GreenPoint, or Build-It-Green checklist as part of their development permit applications. Council Policy 6-32 "Private Sector Green Building Policy," adopted in October 2008, establishes baseline green building standards for private sector new construction and provides a framework for the implementation of these standards. It fosters practices in the design, construction, and maintenance of buildings that will minimize the use and waste of energy, water, and other resources in the City of San José. Private developments are required to implement green building practices if they meet the Applicable Projects criteria defined by Council Policy 6-32 and shown in Table 2 below.

Table 2: Private Sector Green Building Policy Applicable Projects

Applicable Project Minimum Green Building Rating	Minimum Green Building Rating
Commercial/Industrial—Tier 1 (Less than 25,000 square feet)	LEED™ Applicable New Construction Checklist
Commercial/Industrial—Tier 2 (25,000 square feet or greater)	**LEED™ Silver**
Residential—Tier 1 (Less than 10 units)	GreenPoint or LEED™ Checklist
Residential—Tier 2 (10 units or greater)	GreenPoint Rated 50 points or LEED™ Certified
High Rise Residential (75 feet or higher)	LEED™ Certified
Source: City of San José. Private Sector Green Building Policy: Policy Number 6-32. October 7, 2008. Website: https://www.sanJoséca.gov/DocumentCenter/Home/View/363.	

Envision San José 2040 General Plan

The General Plan includes policies to avoid or mitigate impacts resulting from planned development projects with the City. The following policies are specific to air quality and apply to the proposed project.

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

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

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

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

Policy MS-11.3 Review projects generating significant heavy-duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

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

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

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

Policy MS-13.2 Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board (ARB) Air Toxic Control Measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

Greenhouse Gas Regulatory Framework

California Assembly Bill 32 and Executive Order S-3-05

Assembly Bill (AB) 32, also known as the Global Warming Solutions Act, was passed in 2006 and established a goal to reduce GHG emissions to 1990 levels by 2020. Prior to the adoption of AB 32, the Governor of California also signed Executive Order S-3-05 into law, which set a long-term objective to reduce GHG emissions to 90 percent below 1990 levels by 2050. The California Environmental Protection Agency (Cal/EPA) is the State agency responsible for coordinating the GHG emissions reduction effort and establishing targets along the way.

In December 2008, the ARB approved the *Climate Change Scoping Plan*, which proposed a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every 5 years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. The First Update to the Scoping Plan was approved on May 22, 2014, and builds upon the Scoping Plan with new strategies and recommendations. The First Update defined the ARB's priorities over the next 5 years and lays the groundwork to reach long-term goals set forth in Executive Order S-3-05.[1]

California Senate Bill 375

Senate Bill (SB) 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. It builds on AB 32 by requiring the ARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 compared to 2005 emissions. The per capita reduction targets for passenger vehicles in the San Francisco Bay Area include a 7 percent reduction by 2020 and a 15 percent reduction by 2035.[2] The four major requirements of SB 375 are:

1. Metropolitan Planning Organizations (MPOs) must meet GHG emission reduction targets for automobiles and light trucks through land use and transportation strategies.
2. MPOs must create a Sustainable Communities Strategy (SCS), to provide an integrated land use/transportation plan for meeting regional targets, consistent with the Regional Transportation Plan (RTP).
3. Regional housing elements and transportation plans must be synchronized on 8-year schedules, with Regional Housing Needs Assessment (RHNA) allocation numbers conforming to the SCS.
4. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC).

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[1] California Environmental Protection Agency (Cal/EPA). California Air Resources Board (ARB). *First Update to the AB 32 Scoping Plan*. Accessed May 26, 2016. Website: http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.

[2] The emission reduction targets are for those associated with land use and transportation strategies, only. Emission reductions due to the California Low Carbon Fuel Standards or Pavley emission control standards are not included in the targets.

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) adopted *Plan Bay Area* in July 2013. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions.

Bay Area 2017 Clean Air Plan

The Bay Area 2017 Clean Air Plan addresses air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the Clean Air Plan is climate protection. The 2017 Clean Air Plan includes emission control measures and performance objectives, consistent with the State's climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHGs to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan includes policies to avoid or mitigate impacts resulting from planned development projects within City limits. The following policies are specific to reducing GHG emissions and are relevant to the proposed project.

Policy MS-1.1 Demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.

Policy MS-1.4 Foster awareness of San José's business and residential communities of the economic and environmental benefits of green building practices. Encourage design and construction of environmentally responsible commercial and residential buildings that are also operated and maintained to reduce waste, conserve water, and meet other environmental objectives.

Policy MS-2.3 Utilize solar orientation (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.

Policy MS-2.4 Promote energy efficient construction industry practices.

Policy MS-2.6 Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.

Policy MS-2.11 Require new development to incorporate green building policies, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize effectiveness of passive solar design.).

Policy MS-5.5 Maximize recycling and composting from all residents, businesses, and institutions in the City.

Policy MS-5.6 Enhance the construction and demolition debris recycling program to increase diversion from the building sector.

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

Policy MS-16.5 Establish minimum requirements for energy efficiency measures and on-site renewable energy generation capacity on all new housing developments.

Policy CD-2.10 Recognize that finite land area exists for development and that density supports retail vitality and transit ridership. Use land regulations to require compact, low-impact development that efficiently uses land planned for growth, particularly for residential development which tends to have a long lifespan. Strongly discourage small lot and single-family detached residential product types in growth areas.

Policy CD-5.1 Design areas to promote pedestrian and bicycle movements and to facilitate interaction between community members and to strengthen the sense of community.

Policy TR-3.3 As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Policy TR-1.16 Develop a strategy to construct a network of public and private alternative fuel vehicle charging/fueling stations citywide. Revise parking standards to require the installation of electric charging infrastructure at new large employment sites and large, multiple family residential developments.

Policy H-4 Implement green building principles in the design and construction of housing and related infrastructure, in conformance with the Green Building Goals and Policies in the Envision General Plan and in conformance with the City's Green Building Ordinance.

Policy H-4.2 Minimize housing's contribution to greenhouse gas emissions, and locate housing, consistent with our City's land use and transportation goals and policies, to reduce vehicle miles traveled and auto dependency.

Policy H-4.3 Encourage the development of higher residential densities in complete, mixed-use, walkable and bike able communities to reduce energy use and greenhouse gas emissions.

City's GHG Reduction Strategy

The Envision San José 2040 General Plan includes strategies, policies, and action items that are incorporated in the City's GHG Reduction Strategy (GHGRS) to help reduce GHG emissions. The General Plan's multiple policies and actions have GHG implications, including land use, housing, transportation, water usage, solid waste generation and recycling, and reuse of historic buildings. The City's GHGRS is intended to meet the mandates outlined in the BAAQMD CEQA Guidelines and standards for "qualified plans," as established by the BAAQMD. In addition, the City's Green Vision, as reflected in the City's GHGRS, includes a monitoring component that allows for adaptation and adjustment of City programs and initiatives related to sustainability and associated reductions in GHG emissions.

The City's GHGRS identifies GHG emissions reduction measures to be implemented by development projects in four categories: built environment and energy, land use and transportation, recycling, and waste reduction, and other GHG reduction measures. Some measures are mandatory for all proposed development projects, and others are voluntary.

The primary test for consistency with the City's GHGRS is conformance with the City's GHGRS Project Compliance Checklist. Pursuant to CEQA Guidelines, all land use development proposals are required to evaluate consistency with the goals and policies outlined in the City's General Plan designed to reduce GHG emissions, using the GHGRS Project Compliance Checklist. Consistent with the requirements under CEQA Guidelines Section 15183.5, projects consistent with the GHGRS would have a less than significant impact on GHG emissions through 2030 and would not conflict with targets in the currently adopted State of California Climate Change Scoping Plan through 2030.

City of San José Building Reach Code

In 2019, the San José City Council approved Ordinance No. 30311 and adopted the Reach Code to reduce energy-related GHG emissions consistent with the goals of Climate Smart San José. The Reach Code applies to new construction projects in San José. It requires new residential construction to be outfitted with entirely electric fixtures. Mixed-fuel buildings (i.e., use of natural gas) are required to demonstrate increased energy efficiency through a higher Energy Design Ratings and be electrification ready. In addition, the Reach Code requires EV charging infrastructure for all building types (above current CALGreen requirements), and solar readiness for nonresidential buildings.

City of San José Municipal Code

The City's Municipal Code includes the following regulations that would reduce GHG emissions from future development:

- Green Building Ordinance (Chapter 17.84)
- Water Efficient Landscape Standards for New and Rehabilitated Landscaping (Chapter 15.10)

- Transportation Demand Programs for employers with more than 100 employees (Chapter 11.105)
- Construction and Demolition Diversion Deposit Program (Chapter 9.10)
- Wood Burning Ordinance (Chapter 9.10)
- All-Electric Ordinance (Chapter 17.845)

City of San José Private Sector Green Building Policy (6-32)

At the local level, the City of San José sets green building standards for municipal development. All projects are required to submit a Leadership in Energy and Environmental Design (LEED™), GreenPoint, or Build-It-Green checklist as part of their development permit applications. Council Policy 6-32 "Private Sector Green Building Policy," adopted in October 2008, establishes baseline green building standards for private sector new construction and provides a framework for the implementation of these standards. It fosters practices in the design, construction, and maintenance of buildings that will minimize the use and waste of energy, water, and other resources in the City of San José. Private developments are required to implement green building practices if they meet the Applicable Projects criteria defined by Council Policy 6-32 and shown in Table 3 below.

Table 3: Private Sector Green Building Policy Applicable Projects

Applicable Project Minimum Green Building Rating	Minimum Green Building Rating
Commercial/Industrial—Tier 1 (Less than 25,000 square feet)	LEED™ Applicable New Construction Checklist
Commercial/Industrial—Tier 2 (25,000 square feet or greater)	**LEED™ Silver**
Residential—Tier 1 (Less than 10 units)	GreenPoint or LEED™ Checklist
Residential—Tier 2 (10 units or greater)	GreenPoint Rated 50 points or LEED™ Certified
High Rise Residential (75 feet or higher)	LEED™ Certified
Source: City of San José. Private Sector Green Building Policy: Policy Number 6-32. October 7, 2008. Website: https://www.sanJoséca.gov/DocumentCenter/Home/View/363.	

Energy Regulatory Framework

Federal Energy Policy and Conservation Act of 1975

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards and for revising existing standards.

EPA Off-Road Diesel Engine Emissions Standards

The EPA regulates nonroad diesel engines that power mobile equipment (bulldozers, scrapers, front-end loaders, etc.) and stationary equipment (generators, pumps, compressors, etc.). The EPA has no formal

fuel economy standards for nonroad (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emission standards ("Tier 1") for all new nonroad diesel engines greater than 37 kilowatts (kW [50 horsepower]). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxides (NO_X) emissions from these engines by 30 percent. Subsequently, the EPA adopted more stringent emission standards for NO_X, hydrocarbons, and particulate matter (PM) from new nonroad diesel engines. This program included the first set of standards for nonroad diesel engines less than 37 kW. It also phased in more stringent "Tier 2" emission standards from 2001 to 2006 for all engine sizes and added yet more stringent "Tier 3" standards for engines between 37 and 560 kW (50 and 750 horsepower, respectively) from 2006 to 2008. These standards further reduced nonroad diesel engine emissions by 60 percent for NO_X and 40 percent for PM from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Nonroad Diesel Rule. This rule cut emissions from nonroad diesel engines by more than 90 percent, and was phased in between 2008 and 2014. These emission standards are intended to promote advanced clean technologies for nonroad diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

California Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2010. In 2006, California's 20 percent by 2010 Renewables Portfolio Standard goal was codified under SB 107. Under the provisions of SB 107 (signed into law in 2006), investor-owned utilities were required to generate 20 percent of their retail electricity using qualified renewable energy technologies by the end of 2010. In 2008, Executive Order S-14-08 was signed into law and required that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Pacific Gas and Electric Company's (PG&E's) electricity mix in 2015 was 30 percent renewable. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 for retail sellers and publicly owned utilities requires them to procure 50 percent of the State's electricity from renewable sources by 2030.

California Senate Bill 100: Renewable Portfolio Standard Program

On September 10, 2018, Governor Newsom signed SB 100, requiring California electricity utility providers to supply all in-state end-users with electricity sourced from renewable or carbon-free sources by 2045. Specifically, SB 100 accelerates the goals expressed under SB 1078 and requires that the program achieve 50 percent of electricity sourced from renewables by December 31, 2026, 60 percent by December 31, 2030, and 100 percent of electricity sourced from carbon-free sources by December 31, 2045. For clarification, renewable sources, as described herein, includes all renewable sources (e.g., solar, small hydro, wind) but notably omits large-scale hydroelectric and nuclear electricity generation; carbon-free sources include all renewable sources as well as large-scale hydroelectric and nuclear electricity generation.

California Building Code

The Building Energy Efficiency Standards were first adopted in 1976 and have been updated periodically since then as directed by statute. The Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. The Standards are conceptually divided into three basic sets. The first set is a basic set of mandatory requirements that apply to all buildings. The second set is a set of performance standards—the energy budgets—that vary by climate zone (of which there are 16 in California) and building type; thus, the Standards are tailored to local conditions and provide flexibility in how energy efficiency in buildings can be achieved. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that provide a recipe or a checklist compliance approach.

Title 24 California Green Building Standards Code

California Code of Regulations Title 24 Part 11 code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2019 CALGreen that became effective January 1, 2020.[3] Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

City of San José Building Reach Code

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[3] State of California. 2020. California Green Building Standards Code (CALGreen). Website: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen. Accessed December 21, 2021.

implement green building practices if they meet the Applicable Projects criteria defined by Council Policy 6-32 and shown in Table 4 below.

Table 4: Private Sector Green Building Policy Applicable Projects

Applicable Project Minimum Green Building Rating	Minimum Green Building Rating
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Envision San José 2040 General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from planned development projects with the City. The following policies are specific to energy and are relevant to the proposed project.

Policy MS-1.1 Demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.

Policy MS-2.4 Promote energy efficient construction industry practices.

Policy MS-2.2 Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.

Policy MS-2.3 Utilize solar orientation, (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.

Policy MS-2.11 Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).

Policy MS-3.1 Require water efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation or other area functions.

Policy MS-5.5 Maximize recycling and composting from all residents, businesses, and institutions in the City.

Policy MS-14.1 Promote job and housing growth in areas served by public transit and that have community amenities within a 20-minute walking distance.

Policy MS-14.3 Consistent with the California Public Utilities Commission's California Long-Term Energy Efficiency Strategic Plan, as revised and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use.

Policy TR-1.468 Through the entitlement process for new development fund needed transportation improvements for all modes, giving first consideration to improvement of bicycling, walking and transit facilities. Encourage investments that reduce vehicle travel demand.

Policy TR-2.8 Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

Policy TR-3.3 As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

AIR QUALITY EMISSIONS IMPACT ANALYSIS

According to CEQA Guidelines Appendix G, to determine whether impacts related to air quality are significant environmental effects, the following questions are analyzed and evaluated.

Would the project result in:

Impact AIR-1:	**Would the proposed project conflict with or obstruct implementation of the applicable Air Quality Plan?**

Less than significant impact with Standard Permit Conditions and mitigation incorporated. The project site is located in the San Francisco Bay Area Air Basin (Air Basin), where the BAAQMD regulates air

quality. The EPA is responsible for identifying nonattainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated nonattainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter (PM_{10}), annual PM_{10}, and annual fine particulate matter ($PM_{2.5}$).[4]

The BAAQMD has adopted several air quality policies and plans to address regional air quality standards, the most recent of which is the 2017 Clean Air Plan. The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional Air Quality Plan (AQP) for the Air Basin for attaining National Ambient Air Quality Standards (NAAQS). The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants[5] and GHG.[6] The 2017 Clean Air Plan also accounts for projections of population growth provided by ABAG and Vehicle Miles Traveled (VMT) provided by the MTC and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- **Criterion 1:** Does the project support the primary goals of the AQP?
- **Criterion 2:** Does the project include applicable control measures from the AQP?
- **Criterion 3:** Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protect public health in the Bay Area; and
- Reduce GHG emissions and protect the climate.

A measure for determining whether the proposed project supports the primary goals of the AQP is if the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or

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[4] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act. Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 2, 2021.

[5] The EPA has established National Ambient Air Quality Standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

[6] A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which ultimately leads to global warming.

the interim emission reductions specified in the air quality plans. This measure is determined by comparing project emissions to the significance thresholds identified by the BAAQMD for construction- and operation-related pollutants.

As discussed under Impacts AIR-2 and AIR-3, the proposed project would not significantly contribute to cumulative nonattainment pollutant violations or expose sensitive receptors to substantial pollutant concentrations after incorporating identified mitigation. Fugitive dust control measures would be required during the construction of the proposed project in order to reduce localized dust impacts. Impacts related to fugitive dust from the proposed project's construction would be potentially significant without the inclusion of sufficient dust control measures. Adherence to the City's Standard Permit Condition listed below would require the inclusion of Best Management Practices (BMPs) recommended by the BAAQMD and adopted by the City as Standard Permit Conditions to reduce potential impacts related to fugitive dust emissions from use of construction equipment. In addition, construction exhaust emissions would result in potentially significant health risk impacts and would require the implementation of MM AIR-1, which would require the use of Tier 4 Interim engines for construction equipment equal to or greater than 50 horsepower. With the implementation of MM AIR-1 and applicable City Standard Permit Conditions, the proposed project would be consistent with Criterion 1.

Criterion 2

Another measure for determining whether a project is consistent with the AQP is to determine whether it is inconsistent with the growth assumptions incorporated into the AQP and, thus, whether it would interfere with the region's ability to comply with federal and California air quality standards. The development of the AQP is based in part on the General Plan Land Use determinations of the various cities and counties that constitute the Air Basin. The proposed project would build a 121,580-square-foot industrial building including an approximately 5,000 square feet mezzanine on an approximately 14.26-acre site. The General Plan Land Use Map designates the project site as Industrial Park (IP), which is intended for a wide variety of industrial users such as research and development, manufacturing, assembly, testing, and offices.[7] Thus, the proposed project would generally be consistent with the underlying General Plan Land Use designation and would not have the potential to substantially affect housing, employment, and population projections in the region that are the basis of the 2017 Clean Air Plan projections.

The AQPs also assume that all mandatory regulations to reduce air pollution would be adhered to. Therefore, to conform to the assumptions in the AQP, a project must be consistent with all applicable measures contained in the applicable AQP. The Clean Air Plan contains 85 control measures to reduce air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the Clean Air Plan contains several control measures designed to protect the climate, promote mixed-use, and compact development to reduce vehicle

[7] City of San José. 2011. "General Plan Land Use Map." Website: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan/land-use-map. Accessed June 2, 2021.

emissions and exposure to pollutants from stationary and mobile sources. The Clean Air Plan also includes an account of the implementation status of control measures identified in the 2010 Clean Air Plan.

Table 5 lists the relevant Clean Air Plan control measures to the proposed project and evaluates the proposed project's consistency with the measures. As shown below, the proposed project would be consistent with applicable measures.

Table 5: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Buildings Control Measures	
BL1: Green Buildings	**Consistent**. The proposed project would be required to comply with Council Policy 6-32 and attain LEED™ Silver certification because it is over 25,000 square feet in size. Moreover, the proposed project would be required to be designed according to the latest energy efficiency requirements in the California Building Code, which would add to the proposed building's overall energy efficiency.
BL4: Urban Heat Island Mitigation	**Consistent.**. The proposed project would provide landscaping, including trees, shrubs, vines, and groundcover according to City standards that would reduce the urban heat island effect.
Energy Control Measures	
EN1: Decarbonize Electricity Generation	**Consistent.** The proposed project would comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption. In addition, the proposed project would comply with the City's Reach Code that requires building electrification and energy efficiency, solar readiness on nonresidential buildings, and EV-readiness and EV equipment installation. Moreover, the proposed project would enroll in San Jose Clean Energy's (SJCE) Total Green program, which would ensure that 100 percent of the project electricity consumption is sourced from decarbonized generation sources.
EN2: Decrease Electricity Demand	**Consistent.** The proposed project would be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24, which was adopted to meet an Executive Order in the Green Building Initiative to improve the energy efficiency of buildings through aggressive standards. The 2019 Title 24 Standards are the current State building regulations, which went into effect on January 1, 2020. In addition, the proposed project would comply with the City's Reach Code that requires building electrification and energy efficiency, solar readiness on nonresidential buildings, and EV-readiness and EV equipment installation.

Control Measure	Project Consistency
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent.** The proposed project would incorporate landscaping, including trees, shrubs, vines, and groundcover, which would be installed along setbacks and throughout the project site and in compliance with City requirements.
WA3: Green Waste Diversion	**Consistent.** The waste service provider for the proposed project will be required to meet the AB 341 and SB 939 and SB 1374 requirements that require waste service providers to divert green waste. All plant refuse generated during operations of the proposed project would be recycled off-site.
WA4: Recycling and Waste Reduction	**Consistent.** The waste service provider for the proposed project will be required to meet the AB 341 and SB 939 and SB 1374 requirements that require waste to be recycled.
Stationary Control Measures	
SS36: Particulate Matter from Trackout	**Consistent with Standard Permit Conditions.** Mud and dirt that may be tracked out onto the nearby public roads during construction activities shall be removed promptly by the contractor based on the BAAQMD's BMPs for control of fugitive dust emissions during construction, which have been adopted by the City as Standard Permit Conditions.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Asphalt used during project construction would be subject to BAAQMD Regulation 8, Rule 15-Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does limit the ROG content of asphalt available for use during construction by regulating the sale and use of asphalt. Using asphalt from facilities that meet BAAQMD regulations, the proposed project would be consistent with this Clean Air Plan measure.
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access and Facilities	**Consistent.** The proposed project would include eight bicycle parking spaces, which is more than the seven spaces required by the City. Several bus stops are located within a short walking distance of the site, including the Hellyer and Piercy stop, located 350 feet southwest of the project site; the Silver Creek Valley and Hellyer stop, located 650 feet southwest of the project site; and the Silver Creek Valley and Fontanoso stop, located 1,250 feet southwest of the project site. Therefore, the proposed project would not conflict with and be consistent with the BAAQMD's effort to encourage planning for bicycle and pedestrian facilities.
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed June 2, 2021.	

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan after implementing MM AIR-1 and applicable City Standard Permit Conditions; therefore, the proposed project would be consistent with Criterion 2 after the incorporation of mitigation.

Criterion 3

The proposed project would not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. As shown in Table 5 above, the proposed project would incorporate several AQP control measures as project design features, such as utilizing asphalt which would be compliant with BAAQMD regulations, complying with energy efficiency standards contained in the 2019 California Building Standard Code (CBC), installing landscaping across the project site, achieving LEED™ Silver certification, and complying with the City's Reach Code that requires building electrification and energy efficiency. Considering this information, the proposed project would not disrupt or hinder the implementation of any AQP control measures. The proposed project is therefore consistent with Criterion 3.

Summary

As discussed above, the proposed project would be consistent with all three criteria after incorporating the Standard Permit Condition described below and implementation of MM AIR-1. Thus, the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing the 2017 Clean Air Plan would be less than significant with mitigation incorporated.

City Standard Permit Condition

Construction Air Quality

The project applicant shall implement the following measures during all phases of construction to control dust and exhaust at the project site:

- Water active construction areas at least twice daily or as often as needed to control dust emissions.
- Cover trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- Remove visible mud or dirt trackout onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as possible.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

- Minimize idling times either by shutting off equipment when not in use, or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Provide clear signage for construction workers at all access points.
- Maintain and properly tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of "running in proper condition" prior to operation.
- Post a publicly visible sign with the telephone number and person at the lead agency to contact regarding dust complaints.

Impact AIR-2:	**Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?**

Less than significant impact with Standard Permit Condition. This impact is related to the cumulative effect of a project's criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants results from past and present development within the Air Basin, and this regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential regional impacts could result in exceedances of State or federal standards for NO_X, particulate matter (PM_{10} and $PM_{2.5}$), or CO. NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion and resulting potentially severe health effects.

Reactive organic gas (ROG) emissions are also important because of their participation in the formation of ground-level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the proposed project's incremental effects would be cumulatively considerable. Rather, the determination of

cumulative air quality impacts for construction and operational emissions is based on whether the proposed project would result in emissions that exceed the BAAQMD thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Emissions

During construction, fugitive dust would principally be generated from site grading and other earthmoving activities. The majority of this fugitive dust would remain localized and would be deposited near the project site; however, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from this source. Exhaust emissions would also be generated from the operation of the off-road construction equipment and on-road construction vehicles.

Construction Fugitive Dust

The BAAQMD does not recommend a numerical threshold for fugitive dust PM emissions. Instead, the BAAQMD bases the determination of significance for fugitive dust on considering the control measures to be implemented. If the appropriate emission control measures/BMPs are implemented for a project as recommended by the BAAQMD, then fugitive dust emissions during construction are not considered significant. The City has adopted BAAQMD's BMPs as a Standard Permit Condition, as outlined in Standard Permit Condition described in Impact AIR-1, and these fugitive dust control measures shall be implemented during construction activities. As a result, short-term construction fugitive dust impacts would be less than significant.

Construction Air Pollutant Emissions: ROG, NO_X, Exhaust PM_{10}, and Exhaust $PM_{2.5}$

California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

Construction of the proposed project is expected to begin in April 2022 and conclude in February 2023. The preliminary construction schedule is shown in Table 6 below. Note that construction emissions would likely decrease if the construction schedule moved to later years because of improvements in technology and more stringent regulatory requirements. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as CEQA Guidelines require.

Table 6: Preliminary Construction Schedule

Phase	Phase Start Date	Phase End Date	Working Days per Week	Total Number of Working Days
Site Preparation	4/15/2022	5/12/2022	5	20
Grading	5/13/2022	6/23/2022	5	30
Building Construction	6/24/2022	12/22/2022	5	130
Paving	12/23/2022	1/19/2023	5	20
Architectural Coating	1/20/2023	2/16/2023	5	20

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower and load factors of the equipment, and the duration of equipment use. At the time this analysis was prepared, the project applicant anticipated approximately 1,000 cubic yards of soil to be imported and approximately 5,000 cubic yards of soil to be exported during project construction. The project applicant has since confirmed that an estimated 2,380 cubic yards of soil would be exported during project construction; therefore, the emissions modeling utilized in this analysis represents a conservative assessment of construction emissions. Average daily construction emissions are compared with the significance thresholds in Table 7.

Table 7: Construction Emissions (Average Daily Rate)

Parameter	Air Pollutants (tons/year)				
	Year	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Project Construction					
Site Preparation	2022	0.03	0.33	0.02	0.01
Grading	2022	0.03	0.38	0.07	0.01
Building Construction	2022	0.14	1.23	0.06	0.05
Paving	2022	<0.01	0.03	<0.1	<0.1
	2023	0.01	0.07	<0.1	<0.1
Architectural Coating	2023	0.67	0.01	<0.1	<0.1
Total Emissions (tons/year)[1]	**–**	**0.89**	**2.06**	**0.09**	**0.09**
Daily Average					
Total Emissions (lbs/year)[1]		1,774	4,123	184	172
Average Daily Emissions (lbs/day)[2]		8	19	1	1
Significance Threshold (lbs/day)		**54**	**54**	**82**	**54**
Exceeds Significance Threshold?		**No**	**No**	**No**	**No**

Parameter	Air Pollutants (tons/year)				
	Year	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)

Notes:
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
[1] Totals may not add up due to rounding. Calculations use unrounded totals.
[2] Calculated by dividing the total pounds of emissions by the total number of nonoverlapping working days of construction (220 workdays).
Source: CalEEMod Output (see Attachment A).

As indicated in Table 7, the construction emissions from all construction activities are below the recommended thresholds of significance; therefore, the proposed project's construction would have less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. As previously discussed, the proposed project would implement the applicable City Standard Permit Condition for dust control BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions during project construction. Therefore, project construction would have a less than significant impact.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Operational emissions would include area, energy, and mobile sources. Area sources would include emissions from architectural coatings, consumer products, and landscape equipment. Energy sources include emissions from the combustion of natural gas for water and space heating. Mobile sources include exhaust and road dust emissions from the vehicles that would travel to and from the project site. Pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Project operations were analyzed starting in 2023, the first calendar year following project construction. The major sources for operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ include motor vehicle traffic and the occasional repainting of buildings. Assumptions used to estimate operational emissions were consistent with those presented in the Transportation Analysis prepared by Hexagon Transportation Consultants, Inc. for the proposed project.[8] Operational emissions of the respective pollutants were calculated using CalEEMod, Version 2020.4.0. For detailed assumptions used to estimate emissions, see Attachment A. Table 8 presents the annual and average daily emissions generated during project operation.

[8] Hexagon Transportation Consultants, Inc. 2022. 455 Piercy Road Warehouse Transportation Analysis. January 21.

Table 8: Operational Emissions

Emissions Source	Pounds per Day[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.55	<0.01	<0.01	<0.01
Energy	–	–	–	–
Mobile – Passenger Vehicles and Trucks	0.06	1.74	0.41	0.12
Total (tons/year)	*0.61*	1.74	*0.41*	*0.12*
Significance Threshold (Tons/Year)	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Total Average (pounds/day)	*3*	*10*	*2*	*1*
Significance Threshold (Tons/Year)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
NO_X = nitrous oxides
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
ROG = reactive organic gases
[1] Totals may not add up due to rounding. Calculations use unrounded results.
Source: CalEEMod Output (see Attachment A).

As shown in Table 8, the proposed project would not result in operational air pollutants or precursors emissions that would exceed the BAAQMD's thresholds of significance. Therefore, the ongoing, long-term project operations would not have the potential to generate a significant quantity of air pollutants. Therefore, long-term operational impacts associated with criteria pollutant emissions generated by the proposed project would be less than significant without mitigation.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the proposed project are a concern at the local level. Congested intersections can result in high, localized concentrations of CO.

The BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The proposed project would result in a less than significant impact to air quality for local CO if all the following screening criteria are met:

1. The proposed project is consistent with an applicable Congestion Management Program established by the county congestion management agency for designated roads or highways, RTP, and local congestion management agency plans; and

2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Based on the information provided in the Transportation Analysis prepared by Hexagon,[9] the proposed project would generate 201 new daily vehicle trips, with 20 new trips occurring during the AM peak-hour and 22 new trips occurring during the PM peak-hour. As the Transportation Analysis did not distinguish between passenger vehicles and trucks, the applicant indicated that 10 to 15 of the total 17 loading docks are anticipated to be occupied on a daily basis. Therefore, the applicant anticipates up to 15 trucks to access the project site daily, resulting in an estimated 30 daily truck trips. According to the Transportation Analysis, the studied intersection which would experience the greatest traffic volumes during the Background Plus Project scenario would be the intersection of Silver Creek Valley Road and Piercy Road. As discussed therein, that intersection would experience an estimated 3,798 AM peak-hour vehicle trips and 3,528 PM peak-hour vehicle trips including project-generated traffic. As such, the proposed project would not generate vehicle trips which could exceed the volumes of 44,000 vehicle per hour or 24,000 vehicles per hour for areas where vertical and/or horizontal mixing is substantially limited.

Furthermore, as discussed in the Hexagon Transportation Analysis, the proposed project would generate fewer than 100 new peak-hour vehicle trips, thus, a Congestion Management Program (CMP) traffic analysis based on the Santa Clara Valley Transportation Authority Guidelines is not required. As such, the proposed project is assumed to be consistent with the local CMP and would not result in a potentially significant impact. This impact would be less than significant.

Impact AIR-3:	**Would the proposed project expose sensitive receptors to substantial pollutant concentrations?**

Less than significant impact with mitigation. The BAAQMD defines a sensitive receptor as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." As specified by the BAAQMD, health risk and hazard impacts should be analyzed for sensitive receptors within a 1,000-foot radius of the project site.[10] The closest existing sensitive receptors include the following:

- One single-family residence approximately 65 feet southwest of the project site.
- One single-family residence approximately 125 feet southwest of the project site.
- One single-family residence approximately 550 feet southwest of the project site.

[9] Hexagon Transportation Consultants, Inc. 2022. 455 Piercy Road Warehouse Transportation Analysis. January 21.

[10] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 2, 2021.

- One single-family residence approximately 710 feet southwest of the project site.
- One single-family residence approximately 400 feet east of the project site.
- One single-family residence approximately 1,045 feet east of the project site.
- One single-family residence approximately 910 feet southeast of the project site.
- One single-family residence approximately 1,045 feet northwest of the project site.
- Carrington College approximately 4,000 feet south of the project site.
- Wyndham Garden San José approximately 4,500 feet south of the project site.
- The project site is vacant, and no sensitive receptors currently exist on the project site.

In addition, the Family Community Church, located 820 feet to the southeast, and the San José Batting Cages, located 270 feet to the southeast, are near the project site. These uses were not included in the analysis as sensitive receptors because their nature would not result in prolonged or extensive sensitive receptor exposure to TACs generated during project construction. While the batting cages and church are likely to experience frequent visits from children, these businesses/facilities are not considered sensitive land uses (e.g., school, residence, hospital) because their operating hours are largely on the weekends or weekday evenings outside of the allowable timeframe of construction in the City. According to the City's Municipal Code, construction hours within 500 feet of a residential unit are restricted to between 7:00 a.m. to 7:00 p.m. Monday through Friday, unless otherwise expressly allowed in a Development Permit or other planning approval. No construction activities are permitted on the weekends at sites within 500 feet of a residence. As existing residences are within 500 feet of the project site, construction would not be permitted during the weekends, or past 7 p.m. on weekdays without being expressly allowed by a Development Permit or other planning approval.

The proposed project would result in a potentially significant impact on sensitive receptors if any of the following two criteria are met:

- **Criterion 1:** Construction of the proposed project would exceed the BAAQMD health risk significance thresholds.
- **Criterion 2:** Operation of the proposed project would exceed the BAAQMD health risk significance thresholds.

Criterion 1: Project Construction Toxic Air Pollutants

An assessment was made of the potential health impacts on surrounding sensitive receptors resulting from TAC emissions during construction. The assessment is provided below, while Attachment A provides the detailed assumptions and modeling parameters.

Diesel particulate matter (DPM) has been identified by the ARB as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery and vendor trucks and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of $PM_{2.5}$.

Estimation of Construction DPM Emissions

Construction DPM emissions were estimated using CalEEMod, Version 2020.4.0, as described under Impact AIR-2. Construction was assumed to begin in April 2022 and conclude in February 2023. Project

construction emissions were assumed to be distributed over the project site with a working schedule of 8 hours per day, 5 days per week. Table 9 summarizes the emission rates of DPM emissions during construction of the proposed project and DPM emissions during construction of the proposed project with the application of MM AIR-1. As identified in this Health Risk Assessment (HRA), DPM emissions generated by project construction would result in an exceedance of cancer risk thresholds and would require the implementation of MM AIR-1 to ensure impacts are less than significant.

Table 9: Project DPM Construction Emissions

Scenario	On-site DPM—Area (tons/year)	Off-site DPM—Road Segments (tons/year)[1]	Total Local DPM Emissions (tons/year)
Proposed Project	0.08287	0.00289	0.08576
Mitigated Project[2]	0.00837	0.00289	0.01126

Notes:
DPM = diesel particulate matter
[1] The off-site emissions are adjusted to represent construction vehicle travel routes from within approximately 1,000 feet of the project site.
[2] The emissions associated with the mitigated project displayed here incorporate the use of Tier 4 Interim engines for all construction equipment rated for 50 horsepower or greater, as required with MM AIR-1.
Source: CalEEMod Output and Construction Health Risk Assessment Calculations; see Attachment A.

To assess impacts to off-site sensitive receptors, the American Meteorological Society/EPA Regulatory Model (AERMOD) air dispersion model was used to estimate the DPM emission concentrations at nearby sensitive receptors within 1,000 feet of the project site.

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines for estimating cancer risks resulting from exposure to TACs.[11] These guidelines require the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM generated during construction activities.

Estimation of Non-Cancer Chronic Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit. Available reference exposure limits promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a Hazard Index (HI). The HI is a ratio of the predicted concentration of the proposed project's emissions to a concentration

[11] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed June 22, 2021.

considered acceptable to public health professionals, termed the reference exposure limit. The HI assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. Each chemical concentration or dose is divided by the appropriate toxicity reference exposure level to calculate the HI. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a reference exposure limit for DPM of 5 micrograms per cubic meter (µg/m^3). The principal toxicological endpoint assumed in this assessment was through inhalation.

Cancer Risk and Non-Cancer Chronic Hazard Summary

Table 10 summarizes the cancer risk and HI results for unmitigated project construction at the maximally impacted receptors (MIR), a single-family residence approximately 400 feet east of the project site. As shown in Table 10, $PM_{2.5}$ exhaust emissions generated during unmitigated project construction would result in an incremental cancer risk of approximately 15 individuals per one million, which exceeds the BAAQMD's significance threshold of 10 individuals per one million. Therefore, MM AIR-1 would be required to reduce this impact to less than significant.

Table 10: Estimated Cancer Risks and Chronic Non-Cancer Hazards (Unmitigated)

Cancer Risk Scenario	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[1]	TAC Concentration (from AERMOD)[2]
Resident MIR	14.64	0.01	0.05
Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**Yes**	**No**	**No**

Notes:
AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model
DPM = diesel particulate matter
MIR = Maximally Impacted Sensitive Receptor
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
TAC = toxic air contaminant
µg/m^3 = micrograms per cubic meter
[1] Cancer risk is identified by multiplying the risk sum from HARP2 by 1,000,000.
[2] Chronic non-cancer Hazard Index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the DPM reference exposure level of 5 µg/m^3.
[3] TAC concentration taken from AERMOD is always at the MIR, a single-family residence located at 37.25916°N-121.77796°E.
Emissions Source: Attachment A.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 15, 2021.

As shown in Table 10, project construction would result in DPM emissions that would exceed the BAAQMD cancer risk threshold for the residential MIR. As such, the proposed project would be required to implement MM AIR-1, which would require the use of Tier 4 Interim engines for all construction equipment equal to or greater than 50 horsepower. As shown in Table 11 below, the implementation of

MM AIR-1 would ensure that construction DPM emissions generated by the proposed project would not result in an exceedance of BAAQMD cancer risk and chronic non-cancer HI thresholds. As such, this impact would be less than significant with implementation of MM AIR-1.

Table 11: Mitigated Cancer Risks and Chronic Non-Cancer Hazards (MM AIR-1)

Cancer Risk Scenario[1]	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[2]	TAC Concentration (from AERMOD)[3]
Resident MIR	1.50	<0.01	<0.01
Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
µg/m^3 = micrograms per cubic meter
AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model
DPM = diesel particulate matter
MIR = maximally impacted sensitive receptor
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
TAC = toxic air contaminant
[1] Cancer risk is identified by multiplying the risk sum from HARP2 by 1,000,000.
[2] Chronic non-cancer Hazard Index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the DPM reference exposure level of 5 µg/m^3.
[3] TAC concentration taken from AERMOD is always at the MIR, a single-family residence located at 37.25916°N -121.77796°E.
Emissions Source: Attachment A.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 15, 2021.

As noted in Table 11, the proposed project's construction emissions would not exceed any applicable BAAQMD significance threshold after incorporating MM AIR-1. Therefore, project construction would not result in significant health impacts to nearby sensitive receptors with incorporation of the identified mitigation.

Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. As a result, a cumulative HRA was performed that examined the cumulative impacts of the proposed project's construction emissions and sources of TAC emissions within 1,000 feet of the project site. As previously discussed, the MIR was determined to be a single-family residence located immediately adjacent to the east of the project site.

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also includes local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file.

- **Freeway Screening Analysis Tool.** The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area. The closest highway to the identified MIR is US 101, approximately 3,500 feet southwest of the MIR and the project site.
- **Stationary Source Risk and Hazard Screening Tools.** The BAAQMD prepared a web-based tool12 with the location of permitted stationary sources. For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the GIS tool, 3 BAAQMD-permitted stationary sources exist within 1,000 feet of the project site.
- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contains estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. The closest rail line to the project site is operated by Union Pacific Railroad, approximately 5,000 feet southwest from the project site.

A cumulative HRA was performed that examined the cumulative impacts of the project's construction emissions and sources of TAC emissions within 1,000 feet of the project site.

The cumulative health risk results, including health risks from the existing stationary source, are summarized during project construction in Table 12. Cumulative health risk results shown therein are representative of the health risks to the residential MIR, which would experience the highest concentration of pollutants.

Table 12: Summary of the Cumulative Health Impacts at the MIR during Construction

Source	Source Name/Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Project					
Mitigated Construction[2]	Diesel Construction Equipment	400	1.50	<0.01	<0.01
Existing Stationary Sources					
Commonwealth Central Credit Union Facility ID 23501	Generators	1,330	0.01	ND	ND
Suez Water Technologies and	Generators	1,400	0.05	ND	ND

[12] Bay Area Air Quality Management District (BAAQMD). 2018. Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed April 16, 2021.

Source	Source Name/Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Solutions, Inc. Facility ID 23982					
EGP 5855 San José LLC Facility ID 200646	Generators	1,900	0.03	ND	ND
Existing Roadways					
Existing Local Roadways		–	0.07	ND	<0.01
Existing Highways					
Existing Highways		3,500	11.70	ND	0.16
Existing Rail					
Existing Railways		5,000	0.67	ND	<0.01
Cumulative Health Risks					
Cumulative Total with Mitigated Project Construction			**14.03**	**<0.01**	**0.16**
BAAQMD Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
BAAQMD = Bay Area Air Quality Management District
MIR = Maximally Impacted Sensitive Receptor
N/A = no data available
ND = No Data
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[1] The MIR is a single-family residence immediately adjacent to the east of the project site.
[2] The mitigated project construction cancer risk and chronic non-cancer hazard estimates shown here incorporate the use of Tier 4 Final engines for all construction equipment rated for 25 horsepower or greater, as required with MM AIR-1.
Source: Attachment A.

As noted in Table 12, the cumulative impacts from mitigated project construction and existing sources of TACs would be less than the BAAQMD cumulative thresholds of significance. Therefore, because the proposed project would be implementing mitigation sufficient to reduce the proposed project's health risk impacts to below the BAAQMD's single-source thresholds, the proposed project would not be cumulatively considerable or result in a significant cumulative health risk impact.

Criterion 2: Project-Specific Operational Toxic Air Pollutants

The proposed project is a warehouse project and would not be a specific land use which may result in significant amounts of on-site sources of TACs during operation. According to the ARB's Air Quality and Land Use Handbook: A Community Health Perspective,[13] projects should avoid siting new sensitive

receptors within 1,000 feet of warehouse type land uses that accommodates more than 100 trucks per day, more than 40 trucks with operating Transport Refrigeration Units (TRUs) per day, or where TRU unit operations exceed 300 hours per week. While the proposed project would not result in the introduction or siting of sensitive receptors, the ARB's Air Quality and Land Use Handbook provides these types of warehouse and trucking activities as circumstances that could result in potentially significant health impacts to sensitive receptors within 1,000 feet of these activities. As such, the proposed project is analyzed against the land use types and trucking activities provided in the ARB's Air Quality and Land Use Handbook to provide a screening determination of whether the proposed project could result in a potentially significant health impact to existing sensitive receptors within 1,000 feet of the project site during project operation.

As described previously, the proposed project would not include cold storage or TRUs. Further, the proposed project would result in 30 daily heavy-duty truck trips and included in the air quality modeling (Attachment A). As a result, the proposed project would not constitute a land use or activity described in the ARB's advisory recommendations and is considered to not result in conditions which could result in potentially significant health impacts to nearby sensitive receptors during operation. Other vehicle trips generated by the proposed project would principally consist of passenger vehicles and would not represent a substantial source of TAC emissions. Therefore, trucking activities and vehicle trips generated during project operation are not anticipated to result in a substantial TAC source which may significantly impact nearby sensitive receptors.

Operational TACs can also be emitted from stationary sources, such as metal smelting activity or petroleum refinement. An example of a substantial on-site source of TACs is a petroleum refinery or heavy industry type land use where a point source of TACs could be emitted, such as a smokestack. These sources of operational TACs would not be included in the proposed project, which would function primarily as a dry-goods storage and distribution facility. Furthermore, as discussed under Impact AIR-2, project operational CO hotspot impact would be less than significant. Therefore, the proposed project would not result in a potentially significant impact related to exposing people to substantial concentrations of TAC during operation.

Impact AIR-4:	**Would the proposed project result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?**

Less than significant impact. As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard. The ability to detect odors varies considerably among the populations and is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends operational screening criteria based on the distance between receptors and types of sources known to generate odors.

[13] California Air Resources Board (ARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April. Website: https://www.arb.ca.gov/ch/handbook.pdf. Accessed February 16, 2022.

Construction

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. It is anticipated that by the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality or odor concern. Therefore, construction odor impacts would be less than significant.

Operation

The proposed project would construct and operate a single warehouse building with associated office space. During operation of the proposed project, heavy-duty trucks would start up and idle as they unload and load goods at the building docking stations. The operation of heavy-duty trucks would result in odors from diesel fueled engines. However, these odors would not be concentrated near sensitive receptors because the trucks would only stop at designated truck parking or loading areas. In addition, any odors generated would dissipate into the atmosphere such that they would not be noticeable to nearby land uses or sensitive receptors. Operation of this type of project would likely not generate objectionable odors which may affect a substantial number of nearby receptors. The type of uses that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Although the specific uses of the buildings have not been decided, it is not anticipated that a wastewater treatment plant or solid waste transfer station would be accommodated at the project site. As such, this impact would be less than significant.

Recommended Mitigation

City Standard Permit Conditions

The following measures shall be implemented during all phases of construction to control dust and exhaust at the project site:

- Water active construction areas at least twice daily or as often as needed to control dust emissions.
- Cover trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least 2 feet of freeboard.
- Remove visible mud or dirt trackout onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as possible.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Minimize idling times either by shutting off equipment when not in use, or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure, Title 13, Section 2485 of the California Code of Regulations [CCR]). Provide clear signage for construction workers at all access points.
- Maintain and property tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of "running in proper condition" prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints.

Mitigation Measures

MM AIR-1 All off-road equipment equal to or greater than 50 horsepower shall meet either United States Environmental Protection Agency (EPA) or California Air Resources Board (ARB) Tier 4 Interim off-road emission standards or better during all construction activities. The project applicant shall submit a construction management plan to the Director of Planning, Building and Code Enforcement or the Director's designee for review and approval, prior to issuance of any grading and building permits. The construction management plan shall demonstrate that the off-road equipment used on-site to construct the proposed project would comply with Tier 4 Interim off-road emission standards or better. Off-road equipment descriptions and information included in the construction management plan may include but are not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number.

GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

According to CEQA Guidelines Appendix G, to determine whether impacts related to GHG emissions are significant environmental effects, the following questions are analyzed and evaluated.

Would the project result in:

Impact GHG-1:	**Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**
Impact GHG-2:	**Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?**

Less than significant impact. Both construction and operational activities have the potential to generate GHG emissions. The proposed project would generate GHG emissions during temporary (short-term) construction activities such as demolition, site preparation, grading, building construction, paving, and architectural coating activities; running of construction equipment engines including movement of on-

site heavy-duty construction vehicles; hauling materials to and from the project site; asphalt paving; coating and construction worker motor vehicle trips.

Long-term, operational GHG emissions would result from project-generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment, off-site generation of electrical power over the life of the proposed project, the energy required to convey water to and wastewater from the project site, and the emissions associated with the hauling and disposal of solid waste from the project site.

As previously discussed, the City's GHGRS was developed and adopted to assist in streamlining projects' CEQA environmental review for GHG emissions under CEQA Guidelines Section 15183.5. The City's GHGRS identifies GHG emissions reduction measures to be implemented by development projects in four categories: built environment and energy, land use and transportation, recycling, and waste reduction, and other GHG reduction measures. Some measures are mandatory for all proposed development projects, and others are voluntary. Pursuant to CEQA Guidelines, all land use development proposals are required to evaluate consistency with the goals and policies outlined in the City's General Plan designed to reduce GHG emissions, using the GHGRS Project Compliance Checklist. The proposed project would have a significant impact if it were determined to be inconsistent with the City's GHGRS Project Compliance Checklist. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), the proposed project's incremental contribution to cumulative GHG emissions effects may be determined not to be cumulatively considerable if it complies with the requirements of the GHGRS.

City of San José Greenhouse Gas Reduction Strategy

The City of San José GHGRS was adopted in August 2020. The City's GHGRS includes GHG reduction measures applicable to all development projects in the City of San José which are subject to CEQA environmental review. These GHG reduction measures aim to improve energy efficiency and conservation, increase the amount of renewable energy produced in the City, reduce water-related greenhouse gas emissions, decrease the amount of waste sent to landfills, reduce vehicle trips, and promote bicycling, walking, and public transit. Compliance with the GHGRS is determined using the Development Compliance Checklist provided as part of the GHGRS. For nonresidential projects, the applicable parts of the Development Compliance Checklist include Table A, General Plan Consistency, and Table B, 2030 Greenhouse Gas Reduction Strategy Compliance. Table B of the GHGRS contains two parts; Part 1 applies to residential projects only and Part 2 applies to all residential and nonresidential projects.

GHGRS Strategy Consistency

The following analysis demonstrates the proposed project would be consistent with the City's seven GHGRS strategies contained in the GHGRS Checklist.

GHGRS No. 1 The City will implement the SJCE program to provide residents and businesses access to cleaner energy at competitive rates.

- The proposed project would enroll in SJCE's Total Green program and is subject to a permit condition of approval for proof of enrollment, as described below, which

would reduce project operational GHG emissions by utilizing 100 percent carbon free electricity. As a result, the proposed project would be consistent with GHGRS No. 1.

GHGRS No. 2 The City will implement its building reach code ordinance (adopted September 2019) and its prohibition of natural gas infrastructure ordinance (adopted October 2019) to guide the city's new construction toward zero net carbon (ZNC) buildings.

- The proposed project would be consistent with the City's reach code ordinance because the proposed buildings would be built to LEED™ Silver standards, include solar readiness, and EV readiness. The proposed project would also be designed to be all-electric, prohibiting the future use of natural gas, consistent with the City's natural gas prohibition ordinance. As a result, the proposed project would be consistent with GHGRS No. 2.

GHGRS No. 3 The City will expand development of rooftop solar energy through the provision of technical assistance and supportive financial incentives to make progress toward the Climate Smart San José goal of becoming a one-gigawatt solar city.

- The proposed project would not include rooftop solar panels; however, the proposed project would be developed compliant with standards contained in the 2019 CBC, which includes structural features for nonresidential buildings to accommodate future rooftop solar. Additionally, the proposed project would be automatically enrolled in the SJCE 100 percent carbon free electricity. As a result, the proposed project would be consistent with GHGRS No. 3.

GHGRS No. 4 The City will support a transition to building decarbonization through increased efficiency improvements in the existing building stock and reduced use of natural gas appliances and equipment.

- This strategy is not applicable to the proposed project because it would not retrofit an existing building.

GHGRS No. 5 As an expansion to Climate Smart San José, the City will update its Zero Waste Strategic Plan and reassess zero waste strategies. Throughout the development of the update, the City will continue to divert 90 percent of waste away from landfills through source reduction, recycling, food recovery and composting, and other strategies.

- The proposed project would be consistent with this strategy because it would include a dedicated space for waste receptacles on-site for organic waste collection and disposal. As a result, the proposed project would be consistent with GHGRS No. 5.

GHGRS No. 6 The City will continue to be a partner in the Caltrain Modernization Project to enhance local transit opportunities while simultaneously improving the city's air quality.

- The proposed project would not be within ¼ mile of an existing Caltrain station; however, the proposed project would include convenient bicycle parking that would help encourage employee biking and reduce VMT. The proposed project would also be located within walking distance (one mile) of an existing Bus Route 42 station at Hellyer Avenue and Piercy Road, which would contribute to potential vehicle use reductions and subsequent improvements in the City's air quality. Nonetheless, the proposed project would need to implement transportation demand measures to ensure consistency with GHGRS No. 6. As a result, the proposed project would be required to implement MM GHG-1 to ensure consistency with GHGRS No. 6.

GHGRS No. 7 The City will expand its water conservation efforts to achieve and sustain long-term per capita reductions that ensure a reliable water supply with a changing climate, through regional partnerships, sustainable landscape designs, green infrastructure, and water efficient technology and systems.

- The proposed project would be consistent with this strategy because it would include bioretention areas that would reduce peak stormwater flows and retain water on-site. Thus, the proposed project would help conserve water on-site and improve groundwater recharge and also reduce water demand for landscaping. As a result, the proposed project would be consistent with GHGRS No. 7.

Summary

As presented above, the proposed project is consistent with the applicable mandatory measures of the City of San José GHGRS. As such, the proposed project would be considered consistent with the GHG reduction targets codified by SB 32 and the general measures contained in the ARB's 2017 Scoping Plan. Considering this information, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs with mitigation.

Recommended Mitigation

Mitigation Measures

MM GHG-1 Transportation Demand Management Measures

Prior to the issuance of grading and building permits for the project, the project applicant shall provide the Director of Planning, Building, and Code Enforcement or the Director's designee for review and approval documentation demonstrating that the project will implement one or more Transportation Demand Management (TDM) measures which would serve to reduce project-generated Vehicle Miles Traveled (VMT). The TDM may be included as a project design feature or enforced as CEQA mitigation.

ENERGY IMPACT ANALYSIS

According to CEQA Guidelines Appendix G, to determine whether impacts related to energy are significant environmental effects, the following questions are analyzed and evaluated.

Would the project result in:

Impact E-1:	**Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than significant impact. Energy use consumed by the proposed project was estimated and includes natural gas, electricity, and fuel consumption for the proposed project construction and operation. Attachment A includes the energy calculations developed in this section.

Construction Impacts

The anticipated construction was assumed to begin in April 2022 and conclude in February 2023. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. Project construction would require site preparation, grading, building construction, paving, and architectural coating activities. These construction activities would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., site clearing and grading), the actual construction of the building, paving of interior roadways and parking surfaces, and the architectural coating of the constructed buildings. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The on-site equipment used during the construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, front-end loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 50,317 gallons of diesel fuel over the entire construction duration (Attachment A).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated including construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB Emissions Factors model (EMFAC) mobile source emission model. At the time this analysis was prepared, the project applicant anticipated approximately 1,000 cubic yards of soil to be imported and approximately 5,000 cubic yards of soil to be exported during project construction. The project applicant has since confirmed that an estimated 2,380 cubic yards of soil would be exported during project construction; therefore, the emissions modeling utilized in this analysis represents a conservative assessment of construction fuel consumption. Attachment A includes the specific parameters used to estimate fuel usage. Under an

unmitigated construction scenario, the proposed project would generate an estimated 216,100 VMT and a combined 10,384 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Singlewide mobile office trailers, commonly used in construction staging areas, generally range from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 10,398 kilowatt-hour (kWh) during the construction phase (Attachment A).

The overall construction schedule and process are already designed to be efficient to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense of renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Nonetheless, it is anticipated that the proposed project's construction would not result in wasteful, inefficient, and unnecessary energy consumption. Construction-related energy impacts would be less than significant.

Operational Impacts

The proposed project would consume energy as part of building operations and transportation activities. Table 13 summarizes the proposed project's operational energy consumption.

Table 13: Estimated Annual Project Energy Consumption

Energy Type	Annual Consumption
Electricity	547,804 kWh/year
Natural Gas	0 kBTU/year
Passenger Vehicle Fuel Consumption	12,411 gallons/year
Truck Fuel Consumption	80,207 gallons/year

Notes:
kWh = kilowatt-hour
kBTU = kilo-British Thermal Unit
VMT = Vehicle Miles Traveled
[1] Operational Fuel Consumption based on EMFAC2017 Emissions Inventory, Vehicle Classification (Fleet Mix) EMFAC2007 Categories. The calculations are for the year 2023, the proposed project's first full year of operation, and for Santa Clara County, where the proposed project is located (Attachment A).

Operation of the proposed project would consume an estimated 547,804 kWh of electricity annually. In addition, the proposed project would be required to comply with the City's Reach Code (Ordinance No. 30502), which would ensure that new buildings are designed to be all-electric. Therefore, the proposed project is assumed to consume 0 kilo-British Thermal Unit (kBTU) of natural gas on an annual basis. Moreover, Title 24, Part 6, Subchapter 8 of the 2019 California Building Code would require the proposed project to incorporate rooftop structural support to accommodate future installation of solar panels. Additionally, the proposed project's buildings would be designed and constructed following the State's

Building Energy Efficiency Standards and be required to achieve LEED™ Silver certification consistent with Private Sector Green Building Policy (Council Policy 6-32). While no quantified significance threshold exists for energy consumption, project-related passenger vehicle trips would consume an estimated 12,411 gallons of gasoline and diesel and project-related truck trips would consume an estimated 80,207 gallons of diesel annually.[14] Moreover, the proposed project is located in an urbanized portion of the City of San José and would provide commercial development close to jobs, amenities, such as eight bicycle parking spaces, and services that would reduce the need to drive and consume unnecessary fuel. In addition, the proposed project would be within walking distance (one mile) of Bus Route 42 stops along Hellyer Avenue at Piercy Road, which would help contribute to potential reductions in single-occupancy vehicle use and subsequent transportation fuel consumption. For these reasons, fuel consumption associated with proposed project operation would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

Impact E-2:	**Would the proposed project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?**

Less than significant impact. The proposed project would be served by a Community Choice Aggregation (CCA), which instead of a regular electricity provider, would provide electricity from primarily renewable sources. As such, the proposed project would be served with electricity provided by SJCE. SJCE currently provides two power service options. One service option consists of 40 percent renewable sources (Greensource program), and the other consists of 100 percent renewable sources (Total Green program), which the proposed project would be enrolled in. As such, the proposed project would contribute to meeting future legislative targets codified by SB 100, including at least 60 percent of electricity sold to end-users in California generated from renewable energy sources by 2030.

The proposed project would be designed following Title 24, California's Energy Efficiency Standards for Residential Buildings, as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), and indoor and outdoor lighting. Moreover, Title 24, Part 6, Subchapter 8 of the 2019 CBC would also require the proposed project to incorporate rooftop solar. Additionally, the proposed project, due to its nature and size, would be required by Council Policy 6-32 to meet LEED™ Silver certification standards for improving building energy efficiency. Incorporating the Title 24 and LEED™ Silver standards into the proposed project's design would ensure that the proposed project would not result in the use of energy in a wasteful manner. Also, the proposed project would be required to include EV charging infrastructure above current CALGreen requirements, and solar readiness consistent with the City's reach code.

The proposed project would comply with existing State energy standards and with energy conservation policies contained in the City's General Plan and GHGRS as listed in Impact GHG-1. As such, the proposed project would not conflict with State or local renewable or energy efficiency objectives. Impacts would be less than significant.

[14] Note that this is not a quantified threshold, but rather quantification and disclosure.

Recommended Mitigation

Mitigation Measures

None.

Conclusion

Based on the project understanding described above, the proposed project would result in less than significant impacts to air quality after incorporation of MM AIR-1 and the City's Standard Permit Condition for BAAQMD construction BMPs. The analysis further determined that the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; nor would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions after implementation of MM GHG-1.

The analysis also determined that the proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; nor would the proposed project conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Thank you for the opportunity to conduct an air quality and GHG emissions and energy impacts analysis. Please feel free to contact Phil Ault (559.930.6191 or pault@fcs-intl.com) or Lance Park (805.535.5412 or lpark@fcs-intl.com) should you have any questions.

Sincerely,

Philip Ault, Director of Noise and Air Quality
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

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Encl:
Attachment A: Air Quality Supporting Information and Modeling Results

FIRSTCARBON
SOLUTIONS
FCS INTERNATIONAL, INC.

Attachment A:
Air Quality Supporting Information and Modeling Results

Attachment A: Air Quality Supporting Information and Modeling Results

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Piercy Road Warehouse CalEEMod Notes

Note 1. For the 2030 operational models, PG&E's 2030 CO_2 intensity factor is derived from an assumed 2030 power mix based on equal proportions of generation sources in 2019. The only factor that has been uniquely adjusted for 2030 is the change of eligible renewable energy sources total proportion from 33% to 60% to comply with Senate Bill 100's 2030 performance goals. Based on known factors for PG&E's 2019 CO_2 intensity factor, a proximate CO_2 intensity factor of 184 pounds per megawatt-hour delivered was identified for 2030. Please see PG&E Intensity Factors in this Appendix for more information.

Note 2. Land uses and sizes associated with development of the proposed project are drawn from correspondence with the Project Applicant as well as the following site plan(s):

- RGA Site Plans, Piercy Rd. Light Industrial, dated May 14, 2021.

Land uses utilized in the models represent the following:

Industrial > Unrefrigerated Warehouse-No Rail > 116.58 x 1000sqft = proposed warehouse building.

Commercial > General Office Space > 5 x 1000sqft = office space included in warehouse building.

Parking > Parking Lot > 174 x Space = 174 parking stalls. Square footage adjusted to match the cumulative paved parking area of 154,068 square feet.

Recreation > City Park > 1.46 x acre = proposed landscaping.

Note 3. The construction schedule in the models was adjusted to reflect applicant-provided construction scheduling.

Note 4. According to the Project Applicant, approximately 1,000 cubic yards of soil would be imported and 5,000 cubic yards of soil would be exported during grading activities.

Note 5. For the construction models, the worker vehicle trip distance was adjusted to reflect the project VMT contained in the Hexagon Transportation Consultants, Inc. Transportation Analysis prepared for the project, which provided 14.69 daily VMT per employee.[1] Given that each employee would drive to and from the project site, this distance was divided by 2 to retrieve an average travel distance per employee vehicle trip, or an average of 7.35 miles per trip.

Note 6. BAAQMD *Basic Construction Mitigation Measures Recommended For All Proposed Projects* were applied to all construction models, which would be required under MM AIR-1 to ensure that the proposed project would result in a less-than-significant impact related to fugitive dust emissions during construction. This includes watering exposed areas at

[1] Hexagon Transportation Consultants, Inc. 2021. 455 Piercy Road Warehouse Draft Transportation Analysis. September 10.

minimum twice per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

In the "Mitigated (w T4)" model, the application of MM AIR-3a was incorporated to reduce cancer risk impacts to below BAAQMD significance thresholds. MM AIR-3a would require the Project Applicant to utilize construction equipment meeting Tier 4 Interim or better emission standards for all engines greater than 50 horsepower.

Note 7. Hexagon Transportation Consultants, Inc. prepared a Transportation Analysis for the proposed project that analyzes the vehicle trip generation for the proposed project.[2] The analysis illustrates that at full buildout, the proposed project would generate an estimated 201 daily vehicle trips. For the operational models, the passenger vehicle trip distance was adjusted to reflect the project VMT contained in the Hexagon Transportation Consultants, Inc. Transportation Analysis prepared for the project, which provided 14.69 daily VMT per employee.[3] Given that each employee would drive to and from the project site, this distance was divided by 2 to retrieve an average travel distance per employee vehicle trip, or an average of 7.35 miles per trip. According to the project applicant, up to 15 truck stalls would be occupied daily, which would result in up to 30 daily one-way truck trips (15 round-trip trips). According to correspondence with the project applicant, the anticipated port of product origin for truck trips would be the Port of Oakland, approximately 49.2 miles from the project site. As such, the operational models were adjusted to reflect this information for passenger vehicle and truck trips generated by the proposed project.

The fleet mix for the proposed project was adjusted to reflect 100 percent of truck trips as classified under the Heavy Heavy-Duty (HHD) vehicle class and 100 percent of employee passenger vehicle trips as classified under the Light-Duty Auto (LDA), Light-Duty Truck Type 1 (LDT1), Light-Duty Truck Type 2 (LDT2), and Medium-Duty Vehicle (MDV) vehicle classes, according to their respective fleet proportions found in the California Air Resources Board's (ARB) EMFAC2017 database for the first year of full buildout. Please refer to the Fleet Mix Adjustment sheet and Truck Emissions sheet found in this Appendix for more information.

To assign the appropriate fleet mix to the correct trip generation (trucks vs passenger vehicles), all employee passenger vehicle trips were assigned to the General Office Building land use and all truck trips were assigned to the Warehouse land use.

Note 8. According to the Project Applicant, project operation would include to use of 2 electric forklifts, operating 12 hours each day. In addition, the proposed project would be required to comply with the City's All-Electric ordinance, which prohibits the use of natural gas in new buildings. As such, the model was adjusted to reflect these project features.

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2 Hexagon Transportation Consultants, Inc. 2021. 455 Piercy Road Warehouse Draft Transportation Analysis. September 10.

3 Hexagon Transportation Consultants, Inc. 2021. 455 Piercy Road Warehouse Draft Transportation Analysis. September 10.

Operational Fleet Mix - Santa Clara County
CalEEMod Default Fleet Mix Adjustments

			Transportation Analysis Fleet Mix:[1]
Trucks	30	ADT	14.93%
Passenger Vehicles	171	ADT	85.07%
Total	**201**	**ADT**	100%

2023 Project Fleet Mix Adjustments

Passenger Vehicle Classes	**Default Fleet Mix[2]**	**Adjusted Fleet Mix**
LDA	0.571175	0.613613095
LDT1	0.055403	0.059519423
LDT2	0.188166	0.202146666
MDV	0.116095	0.124720816
Total	*0.930839*	1

2030 Project Fleet Mix Adjustments

Passenger Vehicle Classes	**Default Fleet Mix[2]**	**Adjusted Fleet Mix**
LDA	0.577192	0.619738272
LDT1	0.056815	0.061002976
LDT2	0.182253	0.195687326
MDV	0.115088	0.123571426
Total	*0.931348*	1

Truck Vehicle Classes		
HHD	0.006362	1

Notes/Sources:

[1] Hexagon Transportation Consultants, Inc. 2021. 455 Piercy Road Warehouse Draft Transportation Analysis. September 10.

[2] California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model (CalEEMod), Version 2020.4.0.35.

Pacific Gas Electric CO_2 Intensity Factor - 2030 Adjustment

Table 1. PG&E's 2018 Power Content Label

Power Source	Percent of Total Mix
Eligible Renewable	27.4%
Fossil Fuel-Fired	0.0%
Nuclear	41.7%
Large Hydroelectric	30.9%
Other	0.0%
Non-Renewable Total	72.6%
Total	**100%**

Table 2. PG&E's 2018 CO_2 Intensity Factors[2]

Power Source	Individual Intensity Factors (lbs CO_2/MWh)
Eligible Renewable	0
Fossil Fuel-Fired	898
Nuclear	284
Large Hydroelectric	284
Other	N/A
Weighted Average	**206**

Table 3. PG&E's Anticipated 2030 Power Content Label[1]

Power Source	Percent of Total Mix
Eligible Renewable	60%
Fossil Fuel-Fired	12%
Nuclear	16%
Large Hydroelectric	11%
Other	0%
Non-Renewable Total	40%
Total	**100%**

Table 4. PG&E's 2030 CO_2 Intensity Factors[3]

Power Source	Individual Intensity Factors (lbs CO_2/MWh)
Eligible Renewable	0
Fossil Fuel-Fired	898
Nuclear	284
Large Hydroelectric	284
Other	N/A
Weighted Average	**184**

Notes:

[1] Adjustment to 2030 power mix is based on equal proportions of generation sources in 2018. The only factor that has been uniquely adjusted is the change of eligible renewable energy sources total proportion from 27.4% to 60% to comply with Senate Bill 100's 2030 performance goals.

[2] PG&E's total CO_2 emission intensity factor of 206 lbs/MWh and CO2 emission intensity factor specifically for fossil fuel-fired generation sources of 898 lbs/MWh were identified in PG&E's 2020 Corporate Responsibility and Sustainability Report; however, the CO_2 emission intensity factor for other non-renewable sources were unknown. Therefore, the 2019 CO_2 emission intensity factor for all other non-renewable generation sources were identified based on the given overall 206 lbs/MWh and fossil fuel-fired 898 lbs/MWh values and the 2019 power content label using a convex combination equation. PG&E generation sources are identifed in PG&E's Reports as nuclear, hydroelectric, fossil fuel-fired, and elgible renewable. Due to the lack of detailed information, nuclear and hydroelectic source were assumed to be equal, having an unweighted average CO_2 intensity factor of the provided 284 lbs/MWh. Eligible renewable sources were assumed to generate 0 lbs CO2/MWh.

[3] PG&E's 2030 CO_2 emission intensity factor is based on equal proportions of renewable and non-renewable generation sources in 2019, as seen in Table 3. The only factor that was uniquely adjusted was the change of eligible renewable energy sources total proportion from 27.4% to 60% to comply with Senate Bill 100's 2030 performance goals. The CO_2 emission intensity factor is the weighted average using the adjusted renewable generation proportion (see Table 3) and the identified owned source intensity factors for 2019 (see Table 2).

Project Construction Emissions

Model File: Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual
Timestamp: Date: 9/26/2021 8:39 AM

Annual Construction Emissions (tons)

Year	Activity	ROG	NO_x	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)	CO_2e (Metric Tons)
	on site	0.03	0.33	0.02	0.10	0.01	0.06	34
	off site	0.00	0.00	0.00	0.00	-	0.00	1
2022	**Site Preparation**	**0.03**	**0.33**	**0.02**	**0.11**	**0.01**	**0.06**	**34**
	on site	0.03	0.31	0.01	0.06	0.01	0.04	39
	off site	0.00	0.07	0.00	0.01	0.00	0.00	26
2022	**Grading**	**0.03**	**0.38**	**0.01**	**0.07**	**0.01**	**0.04**	**65**
	on site	0.11	1.02	0.05	0.05	0.05	0.05	152
	off site	0.03	0.22	0.00	0.08	0.00	0.02	119
2022	**Building Construction**	**0.14**	**1.23**	**0.06**	**0.13**	**0.05**	**0.07**	**270**
	on site	0.00	0.03	0.00	0.00	0.00	0.00	6
	off site	0.00	0.00	-	0.00	-	0.00	0
2022	**Paving**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**6**
	on site	0.01	0.07	0.00	0.00	0.00	0.00	14
	off site	0.00	0.00	-	0.00	-	0.00	0
2023	**Paving**	**0.01**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**15**
	on site	0.67	0.01	0.00	0.00	0.00	0.00	3
	off site	0.00	0.00	0.00	0.00	0.00	0.00	1
2023	**Architectural Coating**	**0.67**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4**
	Total On Site	**0.86**	**1.78**	**0.09**	**0.23**	**0.08**	**0.15**	**247**
	Total Off Site	**0.03**	**0.29**	**0.00**	**0.09**	**0.00**	**0.03**	**147**
							Total amortized over 30 years	**13**

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values are represented with "-".

Average Daily Construction Emissions (lbs/day)

	ROG	NO_x	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
Total Emissions (tons)	0.89	2.06	0.09	0.31	0.09	0.18
Total Emissions (lbs)	1,773.66	4,123.10	183.64	625.92	171.52	355.00
Average Daily Emissions (lbs/day)[1]	**8.06**	**18.74**	**0.83**	**2.85**	**0.78**	**1.61**
BAAQMD Significance Thresholds	54	54	82	N/A	54	N/A
Project Construction Exceeds Threshold?	**No**	**No**	**No**	**N/A**	**No**	**N/A**

Notes:
1. Total emissions (lbs) are divided by the total nonoverlapping construction workdays (220 days).

Total Annual Operational Emissions Summary

Unmitigated Project Operations - Annual Emissions

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

0

CalEEMod Run: Annual.

Emissions Source	Tons per Year						Metric Tons per Year		
	ROG	NO_x	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)	Total CO_2e	Bio-CO_2	NBio-CO_2e
Area	0.5523	0.00002	0.00001	0.00001	0.00001	0.00001	0	-	0
Energy	-	-	-	-	-	-	51	-	51
Mobile	0.0601	1.736	0.0156	0.4134	0.0149	0.1227	960	-	960
Offroad (Forklifts)	-	-	-	-	-	-	-	-	
Waste	-	-	-	-	-	-	58	23	34
Water	-	-	-	-	-	-	53	9	44
Annual Total	**0.61**	**1.74**	**0.02**	**0.41**	**0.01**	**0.12**	**1,121**	**32**	**1,089**
							Amortized Construction GHG Emissions (MTCO $_2$e/year)		***13***
							Total Operational GHG Emissions ($MTCO_2e$/year)		**1,103**

Note:

All operational emissions were taken from the Mitigated model results to account for BAAQMD and City requirements. For GHG emissions, only non-biogenic CO2e emissions are included in the project's operational GHG emissions, per BAAQMD's 2017 CEQA Air Quality Guidelines.

Total Operational Emissions (Project Phases 1 and 2, and Amortized Construction GHG Emissions)

Emissions Source	Tons per Year					
	ROG	NO_x	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
Annual Total	**0.61**	**1.74**	**0.02**	**0.41**	**0.01**	**0.12**
BAAQMD Significance Thresholds - Annual	10	10	N/A	15	N/A	10
Project Exceeds Annual Threshold?	**No**	**No**	**N/A**	**No**	**N/A**	**No**

Total Operational Emissions (Project Phases 1 and 2)

Emissions Source	Average Pounds per Day					
	ROG	NO_x	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
Average Daily Emissions	**3**	**10**	**0**	**2**	**0**	**1**
BAAQMD Significance Thresholds	54	54	N/A	82	N/A	54
Project Exceeds Annual Threshold?	**No**	**No**	**N/A**	**No**	**N/A**	**No**

Note: Average daily emissions are identified by multiplying the annual emission tonnage by 2,000 pounds and dividing by the total number of operational days per year (365).

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Piercy Road Warehouse - Unmitigated (w BMPs)

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.11	5,000.00	0
Unrefrigerated Warehouse-No Rail	116.58	1000sqft	2.68	116,580.00	0
Parking Lot	174.00	Space	3.54	154,068.00	0
City Park	1.46	Acre	1.46	63,642.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod Note 2

Construction Phase - CalEEMod Note 3

Off-road Equipment - No updates from RFI

Off-road Equipment - Forklifts will be electric!

Off-road Equipment - No demo needed

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - CalEEMod Note 5

On-road Fugitive Dust -

Grading - CalEEMod Note 4

Architectural Coating -

Vehicle Trips - CalEEMod Note 7

Construction Off-road Equipment Mitigation - CalEEMod Note 6

Fleet Mix - CalEEMod Note 7

Energy Use - CalEEMod Note 8

Operational Off-Road Equipment - CalEEMod Note 8

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	230.00	130.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	0.07	0.00
tblEnergyUse	T24NG	16.14	0.00
tblEnergyUse	T24NG	3.37	0.00
tblFleetMix	HHD	6.3620e-003	0.00
tblFleetMix	HHD	6.3620e-003	1.00

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDA	0.57	0.61
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.0410e-003	0.00
tblFleetMix	LHD2	5.0410e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.12
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.00
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	69,600.00	154,068.00
tblLandUse	LandUseSquareFeet	63,597.60	63,642.00
tblLandUse	LotAcreage	1.57	3.54
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	12.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	49.20
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TL	9.50	7.35
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	34.20
tblVehicleTrips	ST_TR	1.74	0.26
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	34.20
tblVehicleTrips	SU_TR	1.74	0.26
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	34.20
tblVehicleTrips	WD_TR	1.74	0.26

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2076	1.9767	1.7830	4.1100e-003	0.3858	0.0876	0.4733	0.1750	0.0817	0.2568	0.0000	369.8449	369.8449	0.0657	0.0163	376.3292
2023	0.6793	0.0849	0.1267	2.1000e-004	2.0800e-003	4.2900e-003	6.3700e-003	5.5000e-004	4.0000e-003	4.5600e-003	0.0000	18.1751	18.1751	4.7500e-003	5.0000e-005	18.3089
Maximum	**0.6793**	**1.9767**	**1.7830**	**4.1100e-003**	**0.3858**	**0.0876**	**0.4733**	**0.1750**	**0.0817**	**0.2568**	**0.0000**	**369.8449**	**369.8449**	**0.0657**	**0.0163**	**376.3292**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2076	1.9767	1.7830	4.1100e-003	0.2190	0.0876	0.3066	0.0912	0.0817	0.1729	0.0000	369.8446	369.8446	0.0657	0.0163	376.3289
2023	0.6793	0.0849	0.1267	2.1000e-004	2.0800e-003	4.2900e-003	6.3700e-003	5.5000e-004	4.0000e-003	4.5600e-003	0.0000	18.1750	18.1750	4.7500e-003	5.0000e-005	18.3088
Maximum	**0.6793**	**1.9767**	**1.7830**	**4.1100e-003**	**0.2190**	**0.0876**	**0.3066**	**0.0912**	**0.0817**	**0.1729**	**0.0000**	**369.8446**	**369.8446**	**0.0657**	**0.0163**	**376.3289**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**42.99**	**0.00**	**34.76**	**47.76**	**0.00**	**32.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-15-2022	7-14-2022	0.9282	0.9282
2	7-15-2022	10-14-2022	0.6917	0.6917
3	10-15-2022	1-14-2023	0.6227	0.6227
4	1-15-2023	4-14-2023	0.7030	0.7030
	Highest		0.9282	0.9282

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
Mobile	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.2161	0.0000	23.2161	1.3720	0.0000	57.5169
Water						0.0000	0.0000		0.0000	0.0000	8.8348	14.6816	23.5164	0.9098	0.0217	52.7321
Total	**0.6124**	**1.7361**	**0.8174**	**9.4000e-003**	**0.3978**	**0.0156**	**0.4134**	**0.1078**	**0.0149**	**0.1227**	**32.0509**	**985.9843**	**1,018.0352**	**2.3219**	**0.1522**	**1,121.4245**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
Mobile	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.2161	0.0000	23.2161	1.3720	0.0000	57.5169
Water						0.0000	0.0000		0.0000	0.0000	8.8348	14.6816	23.5164	0.9098	0.0217	52.7321
Total	**0.6124**	**1.7361**	**0.8174**	**9.4000e-003**	**0.3978**	**0.0156**	**0.4134**	**0.1078**	**0.0149**	**0.1227**	**32.0509**	**985.9843**	**1,018.0352**	**2.3219**	**0.1522**	**1,121.4245**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/15/2022	5/12/2022	5	20	
2	Grading	Grading	5/13/2022	6/23/2022	5	30	
3	Building Construction	Building Construction	6/24/2022	12/22/2022	5	130	
4	Paving	Paving	12/23/2022	1/19/2023	5	20	
5	Architectural Coating	Architectural Coating	1/20/2023	2/16/2023	5	20	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 30

Acres of Paving: 3.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 182,372; Non-Residential Outdoor: 60,791; Striped Parking Area: 9,244

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	750.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	142.00	56.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1966**	**0.0161**	**0.2127**	**0.1010**	**0.0148**	**0.1159**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7098**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.2700e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7734	0.7734	3.0000e-005	3.0000e-005	0.7818
Total	**3.9000e-004**	**2.7000e-004**	**3.2700e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.8000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7734**	**0.7734**	**3.0000e-005**	**3.0000e-005**	**0.7818**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.0885**	**0.0161**	**0.1046**	**0.0455**	**0.0148**	**0.0603**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7097**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.2700e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7734	0.7734	3.0000e-005	3.0000e-005	0.7818
Total	**3.9000e-004**	**2.7000e-004**	**3.2700e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.8000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7734**	**0.7734**	**3.0000e-005**	**3.0000e-005**	**0.7818**

3.3 Grading - 2022

Unmitigated Construction On-Site

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

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Fugitive Dust					0.1066	0.0000	0.1066	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.3128	0.2291	4.4000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	39.0822	39.0822	0.0126	0.0000	39.3982
Total	**0.0292**	**0.3128**	**0.2291**	**4.4000e-004**	**0.1066**	**0.0141**	**0.1207**	**0.0514**	**0.0130**	**0.0644**	**0.0000**	**39.0822**	**39.0822**	**0.0126**	**0.0000**	**39.3982**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7700e-003	0.0649	0.0136	2.4000e-004	6.3600e-003	5.9000e-004	6.9500e-003	1.7500e-003	5.6000e-004	2.3100e-003	0.0000	23.6025	23.6025	8.1000e-004	3.7400e-003	24.7374
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	4.0900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9668	0.9668	4.0000e-005	3.0000e-005	0.9772
Total	**2.2600e-003**	**0.0653**	**0.0177**	**2.5000e-004**	**7.5800e-003**	**6.0000e-004**	**8.1700e-003**	**2.0700e-003**	**5.7000e-004**	**2.6400e-003**	**0.0000**	**24.5692**	**24.5692**	**8.5000e-004**	**3.7700e-003**	**25.7147**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0480	0.0000	0.0480	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.3128	0.2291	4.4000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	39.0821	39.0821	0.0126	0.0000	39.3981
Total	**0.0292**	**0.3128**	**0.2291**	**4.4000e-004**	**0.0480**	**0.0141**	**0.0621**	**0.0231**	**0.0130**	**0.0361**	**0.0000**	**39.0821**	**39.0821**	**0.0126**	**0.0000**	**39.3981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7700e-003	0.0649	0.0136	2.4000e-004	6.3600e-003	5.9000e-004	6.9500e-003	1.7500e-003	5.6000e-004	2.3100e-003	0.0000	23.6025	23.6025	8.1000e-004	3.7400e-003	24.7374
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	4.0900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9668	0.9668	4.0000e-005	3.0000e-005	0.9772
Total	**2.2600e-003**	**0.0653**	**0.0177**	**2.5000e-004**	**7.5800e-003**	**6.0000e-004**	**8.1700e-003**	**2.0700e-003**	**5.7000e-004**	**2.6400e-003**	**0.0000**	**24.5692**	**24.5692**	**8.5000e-004**	**3.7700e-003**	**25.7147**

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Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6214	150.6214	0.0361	0.0000	151.5235
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6214**	**150.6214**	**0.0361**	**0.0000**	**151.5235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0500e-003	0.2052	0.0600	7.8000e-004	0.0240	2.1500e-003	0.0261	6.9300e-003	2.0600e-003	8.9800e-003	0.0000	75.4983	75.4983	1.7100e-003	0.0111	78.8606
Worker	0.0202	0.0139	0.1677	4.3000e-004	0.0499	2.7000e-004	0.0501	0.0133	2.5000e-004	0.0135	0.0000	39.6594	39.6594	1.5700e-003	1.3100e-003	40.0884
Total	**0.0283**	**0.2191**	**0.2277**	**1.2100e-003**	**0.0738**	**2.4200e-003**	**0.0762**	**0.0202**	**2.3100e-003**	**0.0225**	**0.0000**	**115.1577**	**115.1577**	**3.2800e-003**	**0.0125**	**118.9490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6212	150.6212	0.0361	0.0000	151.5233
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6212**	**150.6212**	**0.0361**	**0.0000**	**151.5233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0500e-003	0.2052	0.0600	7.8000e-004	0.0240	2.1500e-003	0.0261	6.9300e-003	2.0600e-003	8.9800e-003	0.0000	75.4983	75.4983	1.7100e-003	0.0111	78.8606
Worker	0.0202	0.0139	0.1677	4.3000e-004	0.0499	2.7000e-004	0.0501	0.0133	2.5000e-004	0.0135	0.0000	39.6594	39.6594	1.5700e-003	1.3100e-003	40.0884
Total	**0.0283**	**0.2191**	**0.2277**	**1.2100e-003**	**0.0738**	**2.4200e-003**	**0.0762**	**0.0202**	**2.3100e-003**	**0.0225**	**0.0000**	**115.1577**	**115.1577**	**3.2800e-003**	**0.0125**	**118.9490**

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3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3100e-003	0.0334	0.0437	7.0000e-005		1.7000e-003	1.7000e-003		1.5700e-003	1.5700e-003	0.0000	6.0083	6.0083	1.9400e-003	0.0000	6.0569
Paving	1.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7000e-003**	**0.0334**	**0.0437**	**7.0000e-005**		**1.7000e-003**	**1.7000e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**6.0083**	**6.0083**	**1.9400e-003**	**0.0000**	**6.0569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1934	0.1934	1.0000e-005	1.0000e-005	0.1955
Total	**1.0000e-004**	**7.0000e-005**	**8.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1934**	**0.1934**	**1.0000e-005**	**1.0000e-005**	**0.1955**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3100e-003	0.0334	0.0437	7.0000e-005		1.7000e-003	1.7000e-003		1.5700e-003	1.5700e-003	0.0000	6.0083	6.0083	1.9400e-003	0.0000	6.0568
Paving	1.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7000e-003**	**0.0334**	**0.0437**	**7.0000e-005**		**1.7000e-003**	**1.7000e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**6.0083**	**6.0083**	**1.9400e-003**	**0.0000**	**6.0568**

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1934	0.1934	1.0000e-005	1.0000e-005	0.1955
Total	**1.0000e-004**	**7.0000e-005**	**8.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1934**	**0.1934**	**1.0000e-005**	**1.0000e-005**	**0.1955**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2300e-003	0.0713	0.1021	1.6000e-004		3.5700e-003	3.5700e-003		3.2900e-003	3.2900e-003	0.0000	14.0188	14.0188	4.5300e-003	0.0000	14.1322
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0713**	**0.1021**	**1.6000e-004**		**3.5700e-003**	**3.5700e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**14.0188**	**14.0188**	**4.5300e-003**	**0.0000**	**14.1322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.7700e-003	0.0000	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4372	0.4372	2.0000e-005	1.0000e-005	0.4417
Total	**2.1000e-004**	**1.4000e-004**	**1.7700e-003**	**0.0000**	**5.7000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4372**	**0.4372**	**2.0000e-005**	**1.0000e-005**	**0.4417**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2300e-003	0.0713	0.1021	1.6000e-004		3.5700e-003	3.5700e-003		3.2900e-003	3.2900e-003	0.0000	14.0188	14.0188	4.5300e-003	0.0000	14.1321
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0713**	**0.1021**	**1.6000e-004**		**3.5700e-003**	**3.5700e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**14.0188**	**14.0188**	**4.5300e-003**	**0.0000**	**14.1321**

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.7700e-003	0.0000	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4372	0.4372	2.0000e-005	1.0000e-005	0.4417
Total	**2.1000e-004**	**1.4000e-004**	**1.7700e-003**	**0.0000**	**5.7000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4372**	**0.4372**	**2.0000e-005**	**1.0000e-005**	**0.4417**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**0.6680**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	3.7000e-004	4.7300e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1658	1.1658	4.0000e-005	4.0000e-005	1.1779
Total	**5.7000e-004**	**3.7000e-004**	**4.7300e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.1658**	**1.1658**	**4.0000e-005**	**4.0000e-005**	**1.1779**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**0.6680**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	3.7000e-004	4.7300e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1658	1.1658	4.0000e-005	4.0000e-005	1.1779
Total	**5.7000e-004**	**3.7000e-004**	**4.7300e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.1658**	**1.1658**	**4.0000e-005**	**4.0000e-005**	**1.1779**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Unmitigated	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	171.00	171.00	171.00	457,493	457,493
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	30.31	30.31	30.31	542,830	542,830
Total	201.31	201.31	201.31	1,000,323	1,000,323

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Office Building	7.35	7.30	7.30	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	49.20	0.00	0.00	100.00	100	0	0

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
General Office Building	0.613613	0.059519	0.202147	0.124721	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	85850	7.9432	1.2900e-003	1.6000e-004	8.0217
Parking Lot	53923.8	4.9892	8.1000e-004	1.0000e-004	5.0386
Unrefrigerated Warehouse-No Rail	408030	37.7525	6.1100e-003	7.4000e-004	38.1258
Total		**50.6849**	**8.2100e-003**	**1.0000e-003**	**51.1861**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	85850	7.9432	1.2900e-003	1.6000e-004	8.0217
Parking Lot	53923.8	4.9892	8.1000e-004	1.0000e-004	5.0386
Unrefrigerated Warehouse-No Rail	408030	37.7525	6.1100e-003	7.4000e-004	38.1258
Total		**50.6849**	**8.2100e-003**	**1.0000e-003**	**51.1861**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Mitigated	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Unmitigated	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Total	**0.5523**	**2.0000e-005**	**2.7300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3100e-003**	**5.3100e-003**	**1.0000e-005**	**0.0000**	**5.6600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Total	**0.5523**	**2.0000e-005**	**2.7300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3100e-003**	**5.3100e-003**	**1.0000e-005**	**0.0000**	**5.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.5164	0.9098	0.0217	52.7321
Unmitigated	23.5164	0.9098	0.0217	52.7321

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.73956	0.5633	9.0000e-005	1.0000e-005	0.5689
General Office Building	0.888669 / 0.544668	0.9032	0.0291	7.0000e-004	1.8371
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	26.9591 / 0	22.0499	0.8807	0.0210	50.3262
Total		**23.5164**	**0.9098**	**0.0217**	**52.7321**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.73956	0.5633	9.0000e-005	1.0000e-005	0.5689
General Office Building	0.888669 / 0.544668	0.9032	0.0291	7.0000e-004	1.8371
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	26.9591 / 0	22.0499	0.8807	0.0210	50.3262
Total		**23.5164**	**0.9098**	**0.0217**	**52.7321**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.2161	1.3720	0.0000	57.5169
Unmitigated	23.2161	1.3720	0.0000	57.5169

8.2 Waste by Land Use

Unmitigated

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	109.59	22.2458	1.3147	0.0000	55.1130
Total		**23.2161**	**1.3720**	**0.0000**	**57.5169**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	109.59	22.2458	1.3147	0.0000	55.1130
Total		**23.2161**	**1.3720**	**0.0000**	**57.5169**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	12.00	365	89	0.20	Electrical

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Piercy Road Warehouse - Mitigated (w T4)

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.11	5,000.00	0
Unrefrigerated Warehouse-No Rail	116.58	1000sqft	2.68	116,580.00	0
Parking Lot	174.00	Space	3.54	154,068.00	0
City Park	1.46	Acre	1.46	63,642.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod Note 2

Construction Phase - CalEEMod Note 3

Off-road Equipment - No updates from RFI

Off-road Equipment - Forklifts will be electric!

Off-road Equipment - No demo needed

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - CalEEMod Note 5

On-road Fugitive Dust -

Grading - CalEEMod Note 4

Architectural Coating -

Vehicle Trips - CalEEMod Note 7

Construction Off-road Equipment Mitigation - CalEEMod Note 6

Fleet Mix - CalEEMod Note 7

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	230.00	130.00
tblFleetMix	HHD	6.3620e-003	0.00
tblFleetMix	HHD	6.3620e-003	1.00
tblFleetMix	LDA	0.57	0.61
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.0410e-003	0.00
tblFleetMix	LHD2	5.0410e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.12	0.12
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MH	2.8380e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.00
tblFleetMix	MHD	7.8170e-003	0.00
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	OBUS	9.1200e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	SBUS	9.2700e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblFleetMix	UBUS	3.8900e-004	0.00
tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	69,600.00	154,068.00
tblLandUse	LandUseSquareFeet	63,597.60	63,642.00
tblLandUse	LotAcreage	1.57	3.54
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35
tblTripsAndVMT	WorkerTripLength	10.80	7.35

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	49.20
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TL	9.50	7.35
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	34.20
tblVehicleTrips	ST_TR	1.74	0.26
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	34.20
tblVehicleTrips	SU_TR	1.74	0.26
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	34.20
tblVehicleTrips	WD_TR	1.74	0.26

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2076	1.9767	1.7830	4.1100e-003	0.3858	0.0876	0.4733	0.1750	0.0817	0.2568	0.0000	369.8449	369.8449	0.0657	0.0163	376.3292
2023	0.6793	0.0849	0.1267	2.1000e-004	2.0800e-003	4.2900e-003	6.3700e-003	5.5000e-004	4.0000e-003	4.5600e-003	0.0000	18.1751	18.1751	4.7500e-003	5.0000e-005	18.3089
Maximum	**0.6793**	**1.9767**	**1.7830**	**4.1100e-003**	**0.3858**	**0.0876**	**0.4733**	**0.1750**	**0.0817**	**0.2568**	**0.0000**	**369.8449**	**369.8449**	**0.0657**	**0.0163**	**376.3292**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0980	1.2878	1.9906	4.1100e-003	0.2190	0.0111	0.2301	0.0912	0.0110	0.1021	0.0000	369.8446	369.8446	0.0657	0.0163	376.3289
2023	0.6730	0.0814	0.1459	2.1000e-004	2.0800e-003	3.1000e-004	2.3900e-003	5.5000e-004	3.1000e-004	8.6000e-004	0.0000	18.1750	18.1750	4.7500e-003	5.0000e-005	18.3088
Maximum	**0.6730**	**1.2878**	**1.9906**	**4.1100e-003**	**0.2190**	**0.0111**	**0.2301**	**0.0912**	**0.0110**	**0.1021**	**0.0000**	**369.8446**	**369.8446**	**0.0657**	**0.0163**	**376.3289**

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	13.06	33.59	-11.88	0.00	42.99	87.58	51.53	47.76	86.86	60.59	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-15-2022	7-14-2022	0.9282	0.4711
2	7-15-2022	10-14-2022	0.6917	0.4998
3	10-15-2022	1-14-2023	0.6227	0.4685
4	1-15-2023	4-14-2023	0.7030	0.6977
		Highest	0.9282	0.6977

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Energy	2.6000e-003	0.0236	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	76.4081	76.4081	8.6900e-003	1.4700e-003	77.0622
Mobile	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Waste						0.0000	0.0000		0.0000	0.0000	23.2161	0.0000	23.2161	1.3720	0.0000	57.5169
Water						0.0000	0.0000		0.0000	0.0000	8.8348	14.6816	23.5164	0.9098	0.0217	52.7321
Total	**0.6150**	**1.7597**	**0.8372**	**9.5400e-003**	**0.3978**	**0.0174**	**0.4152**	**0.1078**	**0.0167**	**0.1245**	**32.0509**	**1,011.7076**	**1,043.7585**	**2.3223**	**0.1526**	**1,147.3005**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Energy	2.6000e-003	0.0236	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	76.4081	76.4081	8.6900e-003	1.4700e-003	77.0622
Mobile	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Waste						0.0000	0.0000		0.0000	0.0000	23.2161	0.0000	23.2161	1.3720	0.0000	57.5169
Water						0.0000	0.0000		0.0000	0.0000	8.8348	14.6816	23.5164	0.9098	0.0217	52.7321
Total	**0.6150**	**1.7597**	**0.8372**	**9.5400e-003**	**0.3978**	**0.0174**	**0.4152**	**0.1078**	**0.0167**	**0.1245**	**32.0509**	**1,011.7076**	**1,043.7585**	**2.3223**	**0.1526**	**1,147.3005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/15/2022	5/12/2022	5	20	
2	Grading	Grading	5/13/2022	6/23/2022	5	30	
3	Building Construction	Building Construction	6/24/2022	12/22/2022	5	130	
4	Paving	Paving	12/23/2022	1/19/2023	5	20	
5	Architectural Coating	Architectural Coating	1/20/2023	2/16/2023	5	20	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 30

Acres of Paving: 3.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 182,372; Non-Residential Outdoor: 60,791; Striped Parking Area: 9,244

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	750.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	142.00	56.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	7.35	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1966**	**0.0161**	**0.2127**	**0.1010**	**0.0148**	**0.1159**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.2700e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7734	0.7734	3.0000e-005	3.0000e-005	0.7818
Total	**3.9000e-004**	**2.7000e-004**	**3.2700e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.8000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7734**	**0.7734**	**3.0000e-005**	**3.0000e-005**	**0.7818**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9700e-003	0.1216	0.2296	3.8000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	**6.9700e-003**	**0.1216**	**0.2296**	**3.8000e-004**	**0.0885**	**6.2000e-004**	**0.0891**	**0.0455**	**6.2000e-004**	**0.0461**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7097**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.2700e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7734	0.7734	3.0000e-005	3.0000e-005	0.7818
Total	**3.9000e-004**	**2.7000e-004**	**3.2700e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.8000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7734**	**0.7734**	**3.0000e-005**	**3.0000e-005**	**0.7818**

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1066	0.0000	0.1066	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.3128	0.2291	4.4000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	39.0822	39.0822	0.0126	0.0000	39.3982
Total	**0.0292**	**0.3128**	**0.2291**	**4.4000e-004**	**0.1066**	**0.0141**	**0.1207**	**0.0514**	**0.0130**	**0.0644**	**0.0000**	**39.0822**	**39.0822**	**0.0126**	**0.0000**	**39.3982**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7700e-003	0.0649	0.0136	2.4000e-004	6.3600e-003	5.9000e-004	6.9500e-003	1.7500e-003	5.6000e-004	2.3100e-003	0.0000	23.6025	23.6025	8.1000e-004	3.7400e-003	24.7374
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	4.0900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9668	0.9668	4.0000e-005	3.0000e-005	0.9772
Total	**2.2600e-003**	**0.0653**	**0.0177**	**2.5000e-004**	**7.5800e-003**	**6.0000e-004**	**8.1700e-003**	**2.0700e-003**	**5.7000e-004**	**2.6400e-003**	**0.0000**	**24.5692**	**24.5692**	**8.5000e-004**	**3.7700e-003**	**25.7147**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0480	0.0000	0.0480	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-003	0.1550	0.2849	4.4000e-004		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	39.0821	39.0821	0.0126	0.0000	39.3981
Total	**7.8000e-003**	**0.1550**	**0.2849**	**4.4000e-004**	**0.0480**	**7.3000e-004**	**0.0487**	**0.0231**	**7.3000e-004**	**0.0239**	**0.0000**	**39.0821**	**39.0821**	**0.0126**	**0.0000**	**39.3981**

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	1.7700e-003	0.0649	0.0136	2.4000e-004	6.3600e-003	5.9000e-004	6.9500e-003	1.7500e-003	5.6000e-004	2.3100e-003	0.0000	23.6025	23.6025	8.1000e-004	3.7400e-003	24.7374
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	4.0900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9668	0.9668	4.0000e-005	3.0000e-005	0.9772
Total	**2.2600e-003**	**0.0653**	**0.0177**	**2.5000e-004**	**7.5800e-003**	**6.0000e-004**	**8.1700e-003**	**2.0700e-003**	**5.7000e-004**	**2.6400e-003**	**0.0000**	**24.5692**	**24.5692**	**8.5000e-004**	**3.7700e-003**	**25.7147**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6214	150.6214	0.0361	0.0000	151.5235
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6214**	**150.6214**	**0.0361**	**0.0000**	**151.5235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0500e-003	0.2052	0.0600	7.8000e-004	0.0240	2.1500e-003	0.0261	6.9300e-003	2.0600e-003	8.9800e-003	0.0000	75.4983	75.4983	1.7100e-003	0.0111	78.8606
Worker	0.0202	0.0139	0.1677	4.3000e-004	0.0499	2.7000e-004	0.0501	0.0133	2.5000e-004	0.0135	0.0000	39.6594	39.6594	1.5700e-003	1.3100e-003	40.0884
Total	**0.0283**	**0.2191**	**0.2277**	**1.2100e-003**	**0.0738**	**2.4200e-003**	**0.0762**	**0.0202**	**2.3100e-003**	**0.0225**	**0.0000**	**115.1577**	**115.1577**	**3.2800e-003**	**0.0125**	**118.9490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0498	0.6964	1.1747	1.7500e-003		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	150.6212	150.6212	0.0361	0.0000	151.5233
Total	**0.0498**	**0.6964**	**1.1747**	**1.7500e-003**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**150.6212**	**150.6212**	**0.0361**	**0.0000**	**151.5233**

Mitigated Construction Off-Site

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0500e-003	0.2052	0.0600	7.8000e-004	0.0240	2.1500e-003	0.0261	6.9300e-003	2.0600e-003	8.9800e-003	0.0000	75.4983	75.4983	1.7100e-003	0.0111	78.8606
Worker	0.0202	0.0139	0.1677	4.3000e-004	0.0499	2.7000e-004	0.0501	0.0133	2.5000e-004	0.0135	0.0000	39.6594	39.6594	1.5700e-003	1.3100e-003	40.0884
Total	**0.0283**	**0.2191**	**0.2277**	**1.2100e-003**	**0.0738**	**2.4200e-003**	**0.0762**	**0.0202**	**2.3100e-003**	**0.0225**	**0.0000**	**115.1577**	**115.1577**	**3.2800e-003**	**0.0125**	**118.9490**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3100e-003	0.0334	0.0437	7.0000e-005		1.7000e-003	1.7000e-003		1.5700e-003	1.5700e-003	0.0000	6.0083	6.0083	1.9400e-003	0.0000	6.0569
Paving	1.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7000e-003**	**0.0334**	**0.0437**	**7.0000e-005**		**1.7000e-003**	**1.7000e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**6.0083**	**6.0083**	**1.9400e-003**	**0.0000**	**6.0569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1934	0.1934	1.0000e-005	1.0000e-005	0.1955
Total	**1.0000e-004**	**7.0000e-005**	**8.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1934**	**0.1934**	**1.0000e-005**	**1.0000e-005**	**0.1955**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0000e-003	0.0301	0.0519	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	6.0083	6.0083	1.9400e-003	0.0000	6.0568
Paving	1.3900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3900e-003**	**0.0301**	**0.0519**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**6.0083**	**6.0083**	**1.9400e-003**	**0.0000**	**6.0568**

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.2000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1934	0.1934	1.0000e-005	1.0000e-005	0.1955
Total	**1.0000e-004**	**7.0000e-005**	**8.2000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1934**	**0.1934**	**1.0000e-005**	**1.0000e-005**	**0.1955**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2300e-003	0.0713	0.1021	1.6000e-004		3.5700e-003	3.5700e-003		3.2900e-003	3.2900e-003	0.0000	14.0188	14.0188	4.5300e-003	0.0000	14.1322
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0713**	**0.1021**	**1.6000e-004**		**3.5700e-003**	**3.5700e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**14.0188**	**14.0188**	**4.5300e-003**	**0.0000**	**14.1322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.7700e-003	0.0000	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4372	0.4372	2.0000e-005	1.0000e-005	0.4417
Total	**2.1000e-004**	**1.4000e-004**	**1.7700e-003**	**0.0000**	**5.7000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4372**	**0.4372**	**2.0000e-005**	**1.0000e-005**	**0.4417**

Mitigated Construction On-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Off-Road	2.3400e-003	0.0703	0.1211	1.6000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	14.0188	14.0188	4.5300e-003	0.0000	14.1321
Paving	3.2500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.5900e-003**	**0.0703**	**0.1211**	**1.6000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**14.0188**	**14.0188**	**4.5300e-003**	**0.0000**	**14.1321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.7700e-003	0.0000	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4372	0.4372	2.0000e-005	1.0000e-005	0.4417
Total	**2.1000e-004**	**1.4000e-004**	**1.7700e-003**	**0.0000**	**5.7000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4372**	**0.4372**	**2.0000e-005**	**1.0000e-005**	**0.4417**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**0.6680**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	3.7000e-004	4.7300e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1658	1.1658	4.0000e-005	4.0000e-005	1.1779
Total	**5.7000e-004**	**3.7000e-004**	**4.7300e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.1658**	**1.1658**	**4.0000e-005**	**4.0000e-005**	**1.1779**

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**0.6667**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	3.7000e-004	4.7300e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1658	1.1658	4.0000e-005	4.0000e-005	1.1779
Total	**5.7000e-004**	**3.7000e-004**	**4.7300e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.1658**	**1.1658**	**4.0000e-005**	**4.0000e-005**	**1.1779**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838
Unmitigated	0.0601	1.7360	0.8147	9.4000e-003	0.3978	0.0156	0.4134	0.1078	0.0149	0.1227	0.0000	920.6125	920.6125	0.0318	0.1295	959.9838

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	171.00	171.00	171.00	457,493	457,493
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	30.31	30.31	30.31	542,830	542,830
Total	201.31	201.31	201.31	1,000,323	1,000,323

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Office Building	7.35	7.30	7.30	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	49.20	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
General Office Building	0.613613	0.059519	0.202147	0.124721	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.571175	0.055403	0.188166	0.116095	0.020429	0.005041	0.007817	0.006362	0.000912	0.000389	0.024445	0.000927	0.002838
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.6849	50.6849	8.2000e-003	9.9000e-004	51.1861
NaturalGas Mitigated	2.6000e-003	0.0236	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	25.7232	25.7232	4.9000e-004	4.7000e-004	25.8761
NaturalGas Unmitigated	2.6000e-003	0.0236	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	25.7232	25.7232	4.9000e-004	4.7000e-004	25.8761

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	81000	4.4000e-004	3.9700e-003	3.3400e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3225	4.3225	8.0000e-005	8.0000e-005	4.3482
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	401035	2.1600e-003	0.0197	0.0165	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.4008	21.4008	4.1000e-004	3.9000e-004	21.5279
Total		**2.6000e-003**	**0.0236**	**0.0199**	**1.4000e-004**		**1.7900e-003**	**1.7900e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**25.7232**	**25.7232**	**4.9000e-004**	**4.7000e-004**	**25.8761**

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	81000	4.4000e-004	3.9700e-003	3.3400e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3225	4.3225	8.0000e-005	8.0000e-005	4.3482
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	401035	2.1600e-003	0.0197	0.0165	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.4008	21.4008	4.1000e-004	3.9000e-004	21.5279
Total		**2.6000e-003**	**0.0236**	**0.0199**	**1.4000e-004**		**1.7900e-003**	**1.7900e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**25.7232**	**25.7232**	**4.9000e-004**	**4.7000e-004**	**25.8761**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	85850	7.9432	1.2900e-003	1.6000e-004	8.0217
Parking Lot	53923.8	4.9892	8.1000e-004	1.0000e-004	5.0386
Unrefrigerated Warehouse-No Rail	408030	37.7525	6.1100e-003	7.4000e-004	38.1258
Total		**50.6849**	**8.2100e-003**	**1.0000e-003**	**51.1861**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	85850	7.9432	1.2900e-003	1.6000e-004	8.0217
Parking Lot	53923.8	4.9892	8.1000e-004	1.0000e-004	5.0386
Unrefrigerated Warehouse-No Rail	408030	37.7525	6.1100e-003	7.4000e-004	38.1258
Total		**50.6849**	**8.2100e-003**	**1.0000e-003**	**51.1861**

6.0 Area Detail

6.1 Mitigation Measures Area

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Unmitigated	0.5523	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Total	**0.5523**	**2.0000e-005**	**2.7300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3100e-003**	**5.3100e-003**	**1.0000e-005**	**0.0000**	**5.6600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.7300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.3100e-003	5.3100e-003	1.0000e-005	0.0000	5.6600e-003
Total	**0.5523**	**2.0000e-005**	**2.7300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.3100e-003**	**5.3100e-003**	**1.0000e-005**	**0.0000**	**5.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.5164	0.9098	0.0217	52.7321
Unmitigated	23.5164	0.9098	0.0217	52.7321

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.73956	0.5633	9.0000e-005	1.0000e-005	0.5689
General Office Building	0.888669 / 0.544668	0.9032	0.0291	7.0000e-004	1.8371
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	26.9591 / 0	22.0499	0.8807	0.0210	50.3262
Total		**23.5164**	**0.9098**	**0.0217**	**52.7321**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.73956	0.5633	9.0000e-005	1.0000e-005	0.5689
General Office Building	0.888669 / 0.544668	0.9032	0.0291	7.0000e-004	1.8371
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	26.9591 / 0	22.0499	0.8807	0.0210	50.3262
Total		**23.5164**	**0.9098**	**0.0217**	**52.7321**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	23.2161	1.3720	0.0000	57.5169
Unmitigated	23.2161	1.3720	0.0000	57.5169

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	109.59	22.2458	1.3147	0.0000	55.1130
Total		**23.2161**	**1.3720**	**0.0000**	**57.5169**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0654
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	109.59	22.2458	1.3147	0.0000	55.1130
Total		**23.2161**	**1.3720**	**0.0000**	**57.5169**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

Piercy Road Warehouse - Mitigated (w T4) - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Piercy Road Warehouse - Construction Trailer - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Piercy Road Warehouse - Construction Trailer

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.72	1000sqft	0.02	720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Trailer Run

Land Use - Construction Trailer

Construction Phase - Construction Trailer Only

Off-road Equipment -

Off-road Equipment - Forklifts will be electric!

Trips and VMT -

On-road Fugitive Dust -

Grading -

Architectural Coating -

Vehicle Trips -

Construction Off-road Equipment Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	9/20/2022	9/13/2022

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

Piercy Road Warehouse - Construction Trailer - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.7663	1.7663	2.0000e-004	3.0000e-005	1.7813
Mobile	2.3200e-003	2.7800e-003	0.0221	5.0000e-005	4.6900e-003	4.0000e-005	4.7300e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1543	4.1543	2.8000e-004	2.0000e-004	4.2212
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	**5.5700e-003**	**3.3500e-003**	**0.0226**	**5.0000e-005**	**4.6900e-003**	**8.0000e-005**	**4.7700e-003**	**1.2500e-003**	**7.0000e-005**	**1.3300e-003**	**0.1766**	**6.0100**	**6.1866**	**0.0127**	**3.3000e-004**	**6.6039**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.7663	1.7663	2.0000e-004	3.0000e-005	1.7813
Mobile	2.3200e-003	2.7800e-003	0.0221	5.0000e-005	4.6900e-003	4.0000e-005	4.7300e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1543	4.1543	2.8000e-004	2.0000e-004	4.2212
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	**5.5700e-003**	**3.3500e-003**	**0.0226**	**5.0000e-005**	**4.6900e-003**	**8.0000e-005**	**4.7700e-003**	**1.2500e-003**	**7.0000e-005**	**1.3300e-003**	**0.1766**	**6.0100**	**6.1866**	**0.0127**	**3.3000e-004**	**6.6039**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	9/14/2022	9/13/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,080; Non-Residential Outdoor: 360; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3200e-003	2.7800e-003	0.0221	5.0000e-005	4.6900e-003	4.0000e-005	4.7300e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1543	4.1543	2.8000e-004	2.0000e-004	4.2212
Unmitigated	2.3200e-003	2.7800e-003	0.0221	5.0000e-005	4.6900e-003	4.0000e-005	4.7300e-003	1.2500e-003	3.0000e-005	1.2900e-003	0.0000	4.1543	4.1543	2.8000e-004	2.0000e-004	4.2212

4.2 Trip Summary Information

Attachment A	Average Daily Trip Rate	Unmitigated	Mitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	7.01	1.59	0.50	12,686	12,686
Total	7.01	1.59	0.50	12,686	12,686

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.569477	0.055134	0.189292	0.116453	0.020534	0.004971	0.008087	0.006412	0.000939	0.000398	0.024459	0.000939	0.002905

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.1438	1.1438	1.9000e-004	2.0000e-005	1.1551
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.1438	1.1438	1.9000e-004	2.0000e-005	1.1551
NaturalGas Mitigated	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6224	0.6224	1.0000e-005	1.0000e-005	0.6261
NaturalGas Unmitigated	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6224	0.6224	1.0000e-005	1.0000e-005	0.6261

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	11664	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6224	0.6224	1.0000e-005	1.0000e-005	0.6261
Total		**6.0000e-005**	**5.7000e-004**	**4.8000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.6224**	**0.6224**	**1.0000e-005**	**1.0000e-005**	**0.6261**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

General Office Building	11664	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6224	0.6224	1.0000e-005	1.0000e-005	0.6261
Total		**6.0000e-005**	**5.7000e-004**	**4.8000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.6224**	**0.6224**	**1.0000e-005**	**1.0000e-005**	**0.6261**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	12362.4	1.1438	1.9000e-004	2.0000e-005	1.1551
Total		**1.1438**	**1.9000e-004**	**2.0000e-005**	**1.1551**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	12362.4	1.1438	1.9000e-004	2.0000e-005	1.1551
Total		**1.1438**	**1.9000e-004**	**2.0000e-005**	**1.1551**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Unmitigated

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**3.1900e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**3.1900e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1301	4.1800e-003	1.0000e-004	0.2645
Unmitigated	0.1301	4.1800e-003	1.0000e-004	0.2645

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.127968 / 0.0784322	0.1301	4.1800e-003	1.0000e-004	0.2645
Total		**0.1301**	**4.1800e-003**	**1.0000e-004**	**0.2645**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.127968 / 0.0784322	0.1301	4.1800e-003	1.0000e-004	0.2645
Total		**0.1301**	**4.1800e-003**	**1.0000e-004**	**0.2645**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1360	8.0400e-003	0.0000	0.3369
Unmitigated	0.1360	8.0400e-003	0.0000	0.3369

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	0.67	0.1360	8.0400e-003	0.0000	0.3369
Total		**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	0.67	0.1360	8.0400e-003	0.0000	0.3369
Total		**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Piercy Road Warehouse - Energy Use Summary

Summary of Energy Use During Construction		(Annually)
Construction vehicle fuel	10,384	gallons (gasoline, diesel)
Construction equipment fuel	50,317	gallons (diesel)
Total construction fuel	60,701	gallons (gasoline, diesel)
Construction office electricity	10,398	kilowatt hours

Summary of Energy Use During Operations		(Annually)
Operation vehicle fuel	12,411	gallons (gasoline, diesel)
Operation Truck Fuel	80,207	gallons (gasoline, diesel)
Operation electricity	547,804	kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed September 15, 2021.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Santa Clara
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

										Calculations	
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
Santa Clara	2022	HHDT	Aggregate	Aggregate	Gasoline	4.973172	516.9337951	99.50323	0.118728	4.353927357	2250.692192
Santa Clara	2022	HHDT	Aggregate	Aggregate	Diesel	8277.4633	1011013.237	88031.26	157.2365	6.429889783	6500703.683
Santa Clara	2022	LDA	Aggregate	Aggregate	Gasoline	733557.69	26455303.53	3456649	820.1713	32.25582639	853337677.8
Santa Clara	2022	LDA	Aggregate	Aggregate	Diesel	7146.6676	268335.1014	33963.02	5.280618	50.81509054	13635472.47
Santa Clara	2022	LDT1	Aggregate	Aggregate	Gasoline	73556.916	2443329.481	340743.8	87.99302	27.76731048	67844688.29
Santa Clara	2022	LDT1	Aggregate	Aggregate	Diesel	36.838799	667.9121032	121.0603	0.026793	24.92866111	16650.15447
Santa Clara	2022	LDT2	Aggregate	Aggregate	Gasoline	250455.37	8295824.493	1167439	325.9545	25.45086593	211135916.9
Santa Clara	2022	LDT2	Aggregate	Aggregate	Diesel	1663.5127	62652.21286	8136.947	1.696168	36.93750388	2314216.356
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Gasoline	16536.903	566343.7683	246375.2	67.10574	8.439572033	4779699.028
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Diesel	11104.436	423266.3697	139679.8	22.77853	18.58181219	7865056.19
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Gasoline	2253.2997	77523.95545	33570.81	10.4693	7.404885741	574056.0322
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Diesel	4438.9849	166319.5005	55836.85	10.1017	16.46450631	2738368.465
Santa Clara	2022	MHDT	Aggregate	Aggregate	Gasoline	1456.1116	75284.47702	29133.88	15.31361	4.916180546	370112.0814
Santa Clara	2022	MHDT	Aggregate	Aggregate	Diesel	9430.0238	551923.8216	94917.85	57.8145	9.54646079	5268919.122

Worker
Sum of VMT*FE (Column BI) 1148284622
Total VMT 37526112.73
Weighted Average FE 30.59961553

Vendor
Sum of VMT*FE (Column BI) 28099165.29
Total VMT 2872192.063
Weighted Average FE 9.783177682

Haul
Sum of VMT*FE (Column BI) 6502954.375
Total VMT 1011530.171
Weighted Average FE 6.42882888

Project Construction Assumptions

On-site Construction

Source: AQ/GHG Appendix, CalEEMod Output
Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual
Date: 9/23/2021 9:28 PM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Site Preparation	Site Preparation	4/15/2022	5/12/2022	5	20
	Grading	Grading	5/13/2022	6/23/2022	5	30
	Building Construction	Building Construction	6/24/2022	12/22/2022	5	130
	Paving	Paving	12/23/2022	1/19/2023	5	20
	Architectural Coating	Architectural Coating	1/20/2023	2/16/2023	5	20

Trips and VMT	Phase Name	Trips per Day			Total Trips					Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Vendor Ve	Num Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
	Site Preparation	18	0	0	7.35	7.3	20	HDT_Mix	20	360	0	0	2,646	0	0	86.47	0.00	0.00
	Grading	15	0	750	7.35	7.3	20	HDT_Mix	30	450	0	750	3,308	0	15,000	108.09	0.00	116.66
	Building Construction	142	56	0	7.35	7.3	20	HDT_Mix	130	18,460	7,280	0	135,681	53,144	0	4,434.08	5,432.18	0.00
	Paving	15	0	0	7.35	7.3	20	HDT_Mix	20	300	0	0	2,205	0	0	72.06	0.00	0.00
	Architectural Coating	28	0	0	7.35	7.3	20	HDT_Mix	20	560	0	0	4,116	0	0	134.51	0.00	0.00

On-site Total Construction VMT (miles)
216,100

On-Site Total Fuel Consumption (gallons)
10,384

Construction Equipment Fuel Calculation

On-site

Source: AQ/GHG Appendix, CalEEMod Output

Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual

Date: 9/23/2021 9:28 PM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Site Preparation	Site Preparation	4/15/2022	5/12/2022	5	20
	Grading	Grading	5/13/2022	6/23/2022	5	30
	Building Construction	Building Construction	6/24/2022	12/22/2022	5	130
	Paving	Paving	12/23/2022	1/19/2023	5	20
	Architectural Coating	Architectural Coating	1/20/2023	2/16/2023	5	20

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
	Site Preparation	Rubber Tired Dozers	3	8	247	0.4	20	47,424.00	2,371.20
	Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	20	22,969.60	1,148.48
	Grading	Excavators	1	8	158	0.38	34	16,330.88	816.54
	Grading	Graders	1	8	187	0.41	34	20,854.24	1,042.71
	Grading	Rubber Tired Dozers	1	8	247	0.4	34	26,873.60	1,343.68
	Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	34	29,286.24	1,464.31
	Building Construction	Cranes	1	7	231	0.29	340	159,436.20	7,971.81
	Building Construction	Forklifts	3	8	89	0.2	340	145,248.00	7,262.40
	Building Construction	Generator Sets	1	8	84	0.74	340	169,075.20	8,453.76
	Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	340	256,254.60	12,812.73
	Building Construction	Welders	1	8	46	0.45	340	56,304.00	2,815.20
	Paving	Pavers	2	8	130	0.42	24	20,966.40	1,048.32
	Paving	Paving Equipment	2	8	132	0.36	24	18,247.68	912.38
	Paving	Rollers	2	8	80	0.38	24	11,673.60	583.68
	Architectural Coating	Air Compressors	1	6	78	0.48	24	5,391.36	269.57

Construction Equipment Fuel Consumption **50,316.78 gallons**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

South Coast Air Quality Management District. 1993. Air Quality Handbook, Table A9-3E.

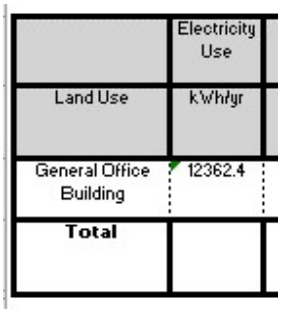
Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook. Accessed July 22, 2021.

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer

Piercy Road Warehouse - Construction Trailer - Santa Clara County, Annual

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Land Use	Electricity Use kWh/yr
General Office Building	12362.4
Total	

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	12,362	kWh/yr
Total Over Construction	**10,398**	**kWh**

Total Construction Schedule	
Start	4/15/2022
End	2/16/2023
Total Calendar Days	307
Years	0.84

Passenger Vehicle Operation Fuel Calculation

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed September 15, 2021.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: Solano
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given *Calculations*

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
Santa Clara	2023	LDA	Aggregate	Aggregate	Gasoline	751359.6462	26739811.21	806.5221241	33.15447	886544190.1
Santa Clara	2023	LDA	Aggregate	Aggregate	Diesel	7591.987456	280497.6881	5.378815284	52.1486	14627561.81
Santa Clara	2023	LDT1	Aggregate	Aggregate	Gasoline	75517.84	2475366.781	86.9130372	28.48096	70500823.55
Santa Clara	2023	LDT1	Aggregate	Aggregate	Diesel	34.17770233	620.5175918	0.024483353	25.34447	15726.68889
Santa Clara	2023	LDT2	Aggregate	Aggregate	Gasoline	254167.4585	8294772.476	315.3635556	26.30225	218171216.1
Santa Clara	2023	LDT2	Aggregate	Aggregate	Diesel	1802.687895	66004.68597	1.739974396	37.93429	2503840.619
Santa Clara	2023	MDV	Aggregate	Aggregate	Gasoline	154431.4006	4896062.632	225.2754149	79.37279	388614173.7
Santa Clara	2023	MDV	Aggregate	Aggregate	Diesel	4004.42906	142223.8665	4.896549513	1.49265	212290.4006

Vehicles		
Sum of VMT*FE	**1581189823**	
Total VMT	**42895359.85**	
Weighted Average FE	**36.86155865**	**miles/gallon**

Total VMT

Source: AQ/GHG Appendix, CalEEMod Output
Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual
Date: 9/23/2021 9:28 PM

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	171.00	171.00	171.00	457,493	457,493
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	30.31	30.31	30.31	542,830	542,830
Total	201.31	201.31	201.31	1,000,323	1,000,323

	Annual VMT (miles)	Fuel Consumption	
Total VMT	457,493	**12,411**	**gallons per year**

Truck Operation Fuel Calculation

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed September 15, 2021.

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Santa Clara
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given *Calculations*

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
Santa Clara	2023	HHDT	Aggregate	Aggregate	Gasoline	4.815447892	553.4124283	0.123869943	4.467689	2472.474826
Santa Clara	2023	HHDT	Aggregate	Aggregate	Diesel	8401.789798	1034051.181	152.7615763	6.769053	6999547.08

	Vehicles	
Sum of VMT*FE	**7002019.555**	
Total VMT	**1034604.593**	
Weighted Average FE	**6.767821832**	**miles/gallon**

Total VMT

Source: AQ/GHG Appendix, CalEEMod Output
Piercy Road Warehouse - Unmitigated (w BMPs) - Santa Clara County, Annual
Date: 9/23/2021 9:28 PM

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	171.00	171.00	171.00	457,493	457,493
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	30.31	30.31	30.31	542,830	542,830
Total	201.31	201.31	201.31	1,000,323	1,000,323

	Annual VMT (miles)	Fuel Consumption	
Total VMT	542,830	**80,207**	**gallons per year**

Operation Electricity Use

Source: AQ/GHG Appendix, CalEEMod Output

Suisun Logistics - Dry Storage Operation - Solano-San Francisco County, Annual

Date: 8/31/2021 1:37 PM

Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use kWh/yr
City Park	0
General Office Building	85850
Parking Lot	53923.8
Unrefrigerated Warehouse-No Rail	408030
Total	

Electricity Use (kWh/yr)

General Office Building	85,850	kWh/year
Parking Lot	53,924	kWh/year
Unrefrigerated Warehouse	408,030	kWh/year
Total	**547,804**	**kWh/year**

Model Assumptions and Methodology

The BAAQMD has developed a set of guidelines[1] that recommends using the American Meteorological Society and Environmental Protection Agency Regulatory Model (AERMOD) air dispersion model to estimate emission concentrations for use in identifying the cancer risk and hazard index associated with sensitive receptor exposure to project construction emissions. The following modeling parameters were employed using AERMOD, Version 21112, to estimate diesel particulate matter (DPM) emission concentrations that were used in the associated cancer risk and hazard calculations.

AERMOD Modeling Parameters

1. Sensitive receptors (e.g., schools, daycare facilities, hospitals, care facilities, residences) in the immediate project vicinity are represented in the model with discrete cartesian receptors. The closest sensitive receptors to the project site, in all directions, include the following:
   - One single-family residence approximately 65 feet southwest of the project site.
   - One single-family residence approximately 125 feet southwest of the project site.
   - One single-family residence approximately 550 feet southwest of the project site.
   - One single-family residence approximately 710 feet southwest of the project site.
   - One single-family residence approximately 400 feet east of the project site.
   - One single-family residence approximately 1,045 feet east of the project site.
   - One single-family residence approximately 910 feet southeast of the project site.
   - One single-family residence approximately 1,045 feet northwest of the project site.

2. A nested cartesian grid was placed in AERMOD with the following spacing parameters:
   - 20 meters spacing within the project site and up to 200 meters from the project site;
   - 50 meters spacing between 200 and 500 meters from the project site; and
   - 100 meters spacing between 500 and 1,000 meters from the project site.

3. AERMOD's non-default regulatory dispersion option was selected. Among the dispersion control options available, the Fast All Sources option was selected.

4. The Urban dispersion coefficient was used as greater than 50 percent of the surrounding three kilometers is developed.

5. Emissions were characterized in the model using various area sources to represent different activities. The following describes the emission sources utilized in the model:
   - One polygon area source to represent on-site construction emissions.
   - One line volume source to represent off-site hauling emissions along Hellyer Road.

[1] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed September 24, 2021.

- One line volume source to represent off-site hauling emissions along Silver Creek Valley Road.
- One line volume source to represent off-site hauling emissions along Piercy Road.

Off-site emissions were adjusted to only account for off-site emissions that would occur within 1,000 feet of the project site (see Off-Site $PM_{2.5}$ Exhaust Adjustment Sheet of this Attachment). As shown therein, each line volume source was assigned an emission rate equal to its proportion of the off-site emissions based on the length of the respective line volume source divided by the combined length of all line volume source(s).

6. Meteorological data from the Reid-Hillview Airport Air Monitoring Station, Station ID 93232. This station was selected as it is the closest monitoring station to the project site, and it resembles physical site characteristics and elevation generally representative of the project site. The Reid-Hillview Airport Air Monitoring Station provides preprocessed meteorological data for years 2009-2014. The model used all years of available meteorological data.

Estimation of Diesel Particulate Matter Emissions

Construction Diesel Particulate Matter (DPM) emissions—represented as $PM_{2.5}$ exhaust—were estimated using CalEEMod, Version 2020.4.0. Construction of the project is expected to begin in April 2022 and conclude by February 2023. Construction emissions were assumed to be distributed over the project area with a working schedule of 8 hours per day, 5 days per week. Construction DPM emissions generated during construction of the project are displayed below in Table 1.

Table 1: Project DPM Construction Emissions

Scenario	On-site DPM—Area (tons/year)	Off-site DPM—Road Segments (tons/year)	Total Local DPM Emissions (tons/year)
Construction DPM	0.08287	0.00289	0.08576
Mitigated Construction DPM	0.00837	0.00289	0.01126
Source: CalEEMod Output and Construction Health Risk Assessment Calculations; see Attachment A.			

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines for estimating cancer risks resulting from exposure to toxic air contaminants (TAC).[2,3] These guidelines require the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM generated during

[2] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines. December. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en. Accessed June 22, 2021.

[3] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en. Accessed June 22, 2021.

construction activities. The HARP2 risk scenario inputs used to calculate cancer risk during project construction are as follows:

Residential Receptors

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Duration: User Defined (Tier 2) – 3 Years, 3rd Trimester Start Age
4. Intake Rate Percentile: Risk Management Policy (RMP) - *Inhalation Only*
5. Selected: "Apply Molecular Weight Adjustment Factor" factor
6. Pathways to Evaluate: Inhalation Only
7. Selected: "Apply fraction of time at residence to age bins less than 16 years"
8. Selected: "Apply fraction of time at residence to age bins greater than or equal to 16 years"
9. Selected: "Use Tier 2 breathing rates (L/kg-day)" factor
10. Selected: "Use Tier 2 fraction of time at residence" factor

Estimation of Non-Cancer Chronic Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit. Available reference exposure limits promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) were considered in the assessment.

Risk characterization for non-cancer health hazards from toxic air contaminants (TAC) is expressed as a Hazard Index. The Hazard Index is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the reference exposure limit. The Hazard Index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the Hazard Index, each chemical concentration or dose is divided by the appropriate toxicity reference exposure level. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a reference exposure limit for DPM of 5 $\mu g/m^3$. The principal toxicological endpoint assumed in this assessment was through inhalation.

Cancer Risk and Non-Cancer Chronic Hazard Summary

Table 2 summarizes the cancer risk and hazard index results for the maximally impacted receptors (MIR). The MIR was identified as a single-family residence approximately 400 feet east from the project site. Cancer risk and chronic non-cancer hazards at the MIR resulting from construction of the project are shown in Table 2.

Table 2: Estimated Cancer Risks and Chronic Non-Cancer Hazards (Proposed Project)

Cancer Risk and Non-Cancer Chronic Hazard MIR	Cancer Risk (risk per million)[1]	Chronic Non-Cancer Hazard Index[2]	TAC Concentration from AERMOD ($\mu g/m^3$)

Residential MIR	14.64	0.01	0.05
Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**Yes**	**No**	**No**

Notes:
[1] Cancer risk is identified by multiplying the risk sum from HARP2 by 1,000,000.
[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the DPM reference exposure level of 5 µg/m³.
[3] TAC concentration taken from AERMOD is always at the MIR, a single-family residence located at 37.25916°N -121.77796°E.
REL = reference exposure level
MIR = maximally impacted sensitive receptor
µg/m³ = micrograms per cubic meter
Emissions Source: Attachment A.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 15, 2021.

As shown in Table 2, the proposed project would present a potentially significant impact to the residential MIR with respect to cancer risk. As such, the proposed project would be required to implement MM AIR-2, which would require the use of Tier 4 Interim emission standards or better for all construction equipment rated at 50 horsepower or greater. As shown in Table 3, implementation of MM AIR-2 would reduce cancer risk at the residential MIR resulting from project construction to below BAAQMD significance thresholds.

Table 3: Estimated Cancer Risks and Chronic Non-Cancer Hazards (Mitigated)

Cancer Risk and Non-Cancer Chronic Hazard MIR	Cancer Risk (risk per million)[1]	Chronic Non-Cancer Hazard Index[2]	TAC Concentration from AERMOD (µg/m³)
Residential MIR	1.50	<0.01	<0.01
Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
[1] Cancer risk is identified by multiplying the risk sum from HARP2 by 1,000,000.
[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the DPM reference exposure level of 5 µg/m³.
[3] TAC concentration taken from AERMOD is always at the MIR, a single-family residence located at 37.25916°N -121.77796°E.
REL = reference exposure level
MIR = maximally impacted sensitive receptor
µg/m³ = micrograms per cubic meter
Emissions Source: Attachment A.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 15, 2021.

Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. For a project-level analysis, BAAQMD provides several tools for use in screening

potential sources of TACs. The BAAQMD-provided tools used to assess the potential cumulative impacts from TACs are described below:

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also includes local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file.

- **Freeway Screening Analysis Tool**. The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area. The closest highway to the identified MIR is US 101, approximately 3,500 feet southwest of the MIR and the project site.

- **Stationary Source Risk and Hazard Screening Tools**. The BAAQMD prepared a web-based tool[4] with the location of permitted stationary sources. For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the GIS tool, 3 BAAQMD-permitted stationary sources exist within 1,000 feet of the project site.

- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contains estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. The closest rail line to the project site is operated by Union Pacific Railroad, approximately 5,000 feet southwest from the project site.

A cumulative Health Risk Assessment (HRA) was performed that examined the cumulative impacts of the project's construction emissions and sources of TAC emissions within 1,000 feet of the project site.

The cumulative health risk results, including health risks from the existing stationary source, are summarized during project construction in Table 4. Cumulative health risk results shown therein are representative of the health risks to the residential MIR, which would experience the highest concentration of pollutants.

Table 4: Summary of the Cumulative Health Impacts at the MIR during Construction

Source	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Mitigated Project					
Residential MIR	Construction Vehicles & Equipment	400	1.50	<0.01	<0.01
Existing Stationary Sources (BAAQMD Facility Number)[2]					

[4] Bay Area Air Quality Management District (BAAQMD). 2018. Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed April 16, 2021.

Source	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Commonwealth Central Credit Union Facility ID 23501	Generators	1,330	0.01	ND	ND
Suez Water Technologies and Solutions, Inc. Facility ID 23982	Generators	1,400	0.05	ND	ND
EGP 5855 San Jose LLC Facility ID 200646	Generators	1,900	0.03	ND	ND
Roadways					
Existing Local Roadway Network		-	0.07	ND	<0.01
Rail					
Existing Rail Lines		5,000	0.67	ND	<0.01
Freeways					
Existing Freeways		3,500	11.70	ND	0.16
Cumulative Health Risks					
Cumulative Maximum with Project DPM Emissions			**14.03**	**<0.01**	**0.16**
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
[1] The MIR here represents a single-family residence located at 37.25916°N -121.77796°E.
[2] Assumes emissions remain constant with time.
ND = no data available
Source: Attachment A.

Project Construction Emissions

Annual Construction Emissions (tons)
(as taken from CalEEMod)

	$PM_{2.5}$ (Exhaust)
Onsite	0.01480
Offsite	0.00000
Site Preparation (2022)	**0.01480**
Onsite	0.01300
Offsite	0.00057
Grading (2022)	**0.01357**
Onsite	0.04950
Offsite	0.00231
Building Construction (2022)	**0.05181**
Onsite	0.00486
Offsite	0.00000
Paving (2022-2023)	**0.00486**
Onsite	0.00071
Offsite	0.00001
Architectural Coating (2023)	**0.00072**
Total Onsite	**8.29E-02**
Total Offsite	**2.89E-03**

Exhaust $PM_{2.5}$ AERMOD Inputs

		(8 hours/day,
Construction Hours	1,760.00	220 workdays)
Elapsed Hours	5,280.00	
Variable Factor	3.00	
On-Site Emissions	165.74	pounds
	75,178.34	grams
	1.424E+01	grams/hours
	3.955E-03	grams/sec
Off-Site Emissions	5.78	pounds
	2,621.76	grams
	4.965E-01	grams/hour
	1.379E-04	grams/sec

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emission Rate (g/sec)
Piercy Road	0.2	18.18%	**3.251E-06**
Hellyer Avenue	0.5	45.45%	**8.127E-06**
Silver Creek Valley Road	0.4	36.36%	**6.501E-06**
Totals	*1.1*	*100.00%*	*1.788E-05*

Notes:
[1] Conversion factor of 453.592 grams/pound was used to convert daily emissions expressed in pounds to daily emissions expressed in grams.
[2] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site.

Off-Site Emission Adjustment for 1,000-foot Radius of Project Site

Phase Name	Days	Vendor Trip Number (Daily)	Hauling Trip Number (Total)	Vendor Trip Length	Hauling Trip Length
Site Preparation	20	0	0	7.3	20
Grading	30	0	750	7.3	20
Building Construction	130	56	0	7.3	20
Paving	20	0	0	7.3	20
Architectural Coating	20	0	0	7.3	20
	Totals	**7,280**	**750**		

Diesel-Fueled Vehicle Results		
	Total Vehicle Trips	Vehicle Miles Traveled (VMT)
Vendor Trucks	7,280.00	53,144.00
Hauling Trucks	750	15,000
Total VMT		**68,144**

AERMOD 1,000-ft Radius Adjustment		
	Total Vehicle Trips	Vehicle Miles Traveled (VMT)
Vendor Trucks	7,280.00	8,008.00
Hauling Trucks	750	825
Total VMT		**8,833.00**

Proportion of off-site emissions occuring within 1,000 of project site:	**12.9623%**

Mitigated Project Construction Emissions

Annual Construction Emissions (tons)
(as taken from CalEEMod)

	$PM_{2.5}$ (Exhaust)
Onsite	0.00062
Offsite	0.00000
Site Preparation (2022)	**0.00062**
Onsite	0.00073
Offsite	0.00057
Grading (2022)	**0.00130**
Onsite	0.00661
Offsite	0.00231
Building Construction (2022)	**0.00892**
Onsite	0.00037
Offsite	0.00000
Paving (2022-2023)	**0.00037**
Onsite	0.00004
Offsite	0.00001
Architectural Coating (2023)	**0.00005**
Total Onsite	**8.37E-03**
Total Offsite	**2.89E-03**

Exhaust $PM_{2.5}$ AERMOD Inputs

		(8 hours/day,
Construction Hours	**1,760.00**	**220 workdays)**
Elapsed Hours	**5,280.00**	
Variable Factor	**3.00**	
On-Site Emissions	**16.74**	**pounds**
	7,593.13	**grams**
	1.438E+00	**grams/hours**
	3.995E-04	**grams/sec**
Off-Site Emissions	**5.78**	**pounds**
	2,621.76	**grams**
	4.965E-01	**grams/hour**
	1.379E-04	**grams/sec**

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emission Rate (g/sec)
Piercy Road	0.2	18.18%	**3.251E-06**
Hellyer Avenue	0.5	45.45%	**8.127E-06**
Silver Creek Valley Road	0.4	36.36%	**6.501E-06**
Totals	*1.1*	*100.00%*	*1.788E-05*

Notes:

[1] Conversion factor of 453.592 grams/pound was used to convert daily emissions expressed in pounds to daily emissions expressed in grams.

[2] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site.

Off-Site Emission Adjustment for 1,000-foot Radius of Project Site

Phase Name	Days	Vendor Trip Number (Daily)	Hauling Trip Number (Total)	Vendor Trip Length	Hauling Trip Length
Site Preparation	20	0	0	7.3	20
Grading	30	0	750	7.3	20
Building Construction	130	56	0	7.3	20
Paving	20	0	0	7.3	20
Architectural Coating	20	0	0	7.3	20
	Totals	**7,280**	**750**		

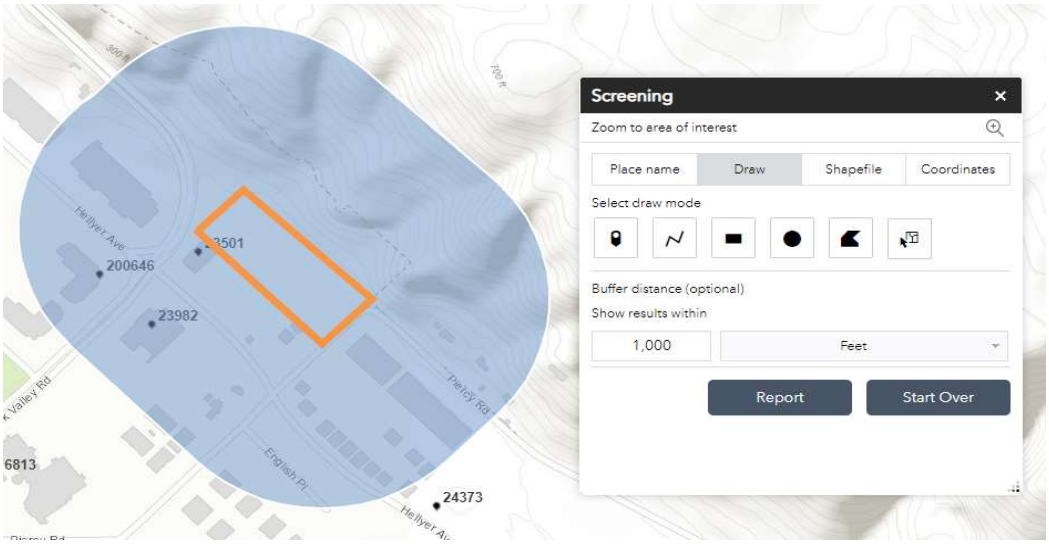
Diesel-Fueled Vehicle Results		
	Total Vehicle Trips	Vehicle Miles Traveled (VMT)
Vendor Trucks	7,280.00	53,144.00
Hauling Trucks	750	15,000
Total VMT		**68,144**

AERMOD 1,000-ft Radius Adjustment		
	Total Vehicle Trips	Vehicle Miles Traveled (VMT)
Vendor Trucks	7,280.00	8,008.00
Hauling Trucks	750	825
Total VMT		**8,833.00**

Proportion of off-site emissions occuring within 1,000 of project site:	**12.9623%**

Existing Stationary Sources within 1,000 Feet of the Project

Lat, Long Project Site: 37.259142°, -121.780281°



Permitted Stationary Sources within 1,000 feet of the Project Site:

1 Facility ID 23501 Commonwealth Central Credit Union, 5890 Silver Crek Vlly Rd
2 Facility ID 23982 Suez Water Technologies and Solutions, Inc, 5900 Silver Creek Vly Rd
3 Facility ID 200646 EGP 5855 San Jose LLC, 5855 SILVER CREEK VALLEY RD

Commonwealth Central Credit Union

Facility ID	23501
Name	Commonwealth Central Credit Union
Address	5890 Silver Crek Vlly Rd
City	San Jose
St	CA
Zip	95138
County	Santa Clara
Cancer (per million)	0.160
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Generators
Latitude	37.260
Longitude	-121.783

Distance from MIR: 1,330 feet

Data provided by BAAQMD:

Cancer Risk	0.16
Hazard	0
PM2.5 (ug/m3)	0
Source Type	Generators

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	1.000		0		0
15	49.2	1.000		0		0
260	853.0	0.05		0		0
280	918.6	0.04	0.16	0.0064		0

Suez Water Technologies and Solutions, Inc

Facility ID	23982
Name	Suez Water Technologies and Solutions, Inc
Address	5900 Silver Creek Vly Rd
City	San Jose
St	CA
Zip	95138
County	Santa Clara
Cancer (per million)	1.150
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Generators
Latitude	37.259
Longitude	-121.784

Distance from MIR: 1,400 feet

Data provided by BAAQMD:

Cancer Risk	1.15
Hazard	0
PM2.5 (ug/m3)	0
Source Type	Generators

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	1.000		0		0
15	49.2	1.000		0		0
260	853.0	0.05		0		0
280	918.6	0.04	1.15	0.046		0

EGP 5855 San Jose LLC

Facility ID	200646
Name	EGP 5855 San Jose LLC
Address	5855 SILVER CREEK VALLEY RD
City	SAN JOSE
St	CA
Zip	95138
County	Santa Clara
Cancer (per million)	0.720
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Generators
Latitude	37.260
Longitude	-121.785

Distance from MIR: 1,900 feet

Data provided by BAAQMD:

Cancer Risk	0.72
Hazard	0
PM2.5 (ug/m3)	0
Source Type	Generators

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	1.000		0		0
15	49.2	1.000		0		0
260	853.0	0.05		0		0
280	918.6	0.04	0.72	0.0288		0

HARP2 - HRACalc (dated 19044) 9/25/2021 9:57:46 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 3

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 1
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: ON
16 years to 70 years: ON

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|DBRs changed|FAH changed|
Calculating cancer risk
Cancer risk saved to: C:\Users\lpark\Desktop\5458.0005 Piercy Rd Warehouse\Modeling\HARP2\Piercy Rd MIR_CancerRisk.csv
HRA ran successfully

Control Pathway

Dispersion Options

Titles

C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd

Dispersion Options

☐ Regulatory Default ☑ Non-Default Options

☑ Flat & Elevated Terrain
☐ No Stack-Tip Downwash (NOSTD)
☐ Run in Screening Mode
☐ Conversion of NOx to NO2 (OLM or PVMRM)
☐ No Checks for Non-Sequential Met Data
☑ Fast All Sources (FASTALL)
☐ Fast Area Sources (FASTAREA)
☐ Optimized Area Source Plume Depletion
☐ Gas Deposition

BETA Options:

☐ Capped and Horizontal Stack Releases
☐ Adjusted Friction Velocity (u*) in AERMET (ADJ_U*)
☐ Low Wind Options

☐ SCIM (Sampled Chronological Input Model)
☐ Ignore Urban Night / Daytime Transition (NOURBTRAN)

Dispersion Coefficient

Urban
Population:
Name (Optional):
Roughness Length:

Output Type

☑ Concentration
☐ Total Deposition (Dry & Wet)
☐ Dry Deposition
☐ Wet Deposition

Plume Depletion

☐ Dry Removal
☐ Wet Removal

Output Warnings

☐ No Output Warnings
☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24

☐ Month ☑ Period ☐ Annual

Exponential Decay

☐ Yes ☑ No

Terrain Height Options

☐ Flat ☑ Elevated
SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

☑ Yes ☐ No

Default Height = 1.50 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: 54580005 Piercy Rd Warehouse.err

Source Pathway - Source Inputs

Polygon Area Sources

Source Type: AREA POLY

Source: SITE (Project Site)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
62.04	3.00	1.23E-7		8	607945.57	4124519.75
		1.23E-7			608158.89	4124317.00
		1.23E-7			608206.70	4124362.98
		1.23E-7			608224.17	4124370.33
		1.23E-7			608238.88	4124367.57
		1.23E-7			608246.70	4124364.36
		1.23E-7			608256.36	4124374.93
		1.23E-7			608016.37	4124595.61

Source Pathway - Source Inputs

Line Volume Sources

Source Type: LINE VOLUME

Source: HELLYER (Hellyer Ave)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
14.00	8.13E-6		607656.40	4124610.23	60.20	3.57
			607723.64	4124545.88	60.55	3.57
			607742.86	4124526.83	60.66	3.57
			607775.44	4124498.64	60.66	3.57
			607854.80	4124440.62	61.26	3.57
			607949.82	4124352.08	61.58	3.57
			607995.32	4124307.81	61.78	3.57
			608017.91	4124282.84	61.89	3.57
			608039.02	4124255.48	61.87	3.57
			608066.38	4124211.31	61.89	3.57
			608089.05	4124173.40	62.18	3.57
			608116.01	4124139.34	62.21	3.57
			608142.56	4124109.68	62.52	3.57
			608188.58	4124066.21	63.39	3.57
			608203.67	4124053.38	63.45	3.57
			608219.80	4124039.67	63.99	3.57
			608256.75	4124017.13	64.06	3.57

Source Pathway - Source Inputs

Source Type: LINE VOLUME
Source: PIERCY (Piercy Rd)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
9.00	3.25E-6		607946.30	4124085.20	61.88	3.57
			608055.84	4124195.46	61.92	3.57
			608104.30	4124245.76	61.99	3.57
			608147.90	4124294.99	62.23	3.57
			608208.10	4124356.32	63.87	3.57
			608211.31	4124358.52	63.95	3.57
			608215.01	4124360.22	63.98	3.57
			608219.78	4124361.68	64.03	3.57
			608225.79	4124362.37	64.48	3.57
			608231.41	4124362.68	64.86	3.57
			608237.42	4124361.68	65.23	3.57
			608241.27	4124359.91	65.41	3.57
			608244.89	4124357.21	65.51	3.57
			608465.55	4124145.31	65.97	3.57

Source Pathway - Source Inputs

Source Type: LINE VOLUME

Source: SCV (Silver Creek Valley Rd)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
14.00	6.50E-6		607726.40	4124295.50	60.90	3.57
			607803.24	4124373.11	61.26	3.57
			607844.21	4124428.77	61.29	3.57
			607885.73	4124489.37	61.57	3.57
			607903.02	4124523.60	61.80	3.57
			607912.32	4124571.13	62.16	3.57
			607913.09	4124594.79	63.38	3.57
			607909.21	4124621.94	66.17	3.57
			607900.03	4124653.38	69.41	3.57
			607892.87	4124670.11	72.71	3.57
			607862.45	4124712.98	73.02	3.57
			607786.15	4124787.64	79.93	3.57

Source Pathway - Source Inputs

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000403	607661.46	4124605.39	60.31	3.57	1.33E-7	14.00		6.51	3.32
	L0000404	607671.57	4124595.71	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000405	607681.69	4124586.03	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000406	607691.80	4124576.35	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000407	607701.92	4124566.67	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000408	607712.03	4124556.99	60.38	3.57	1.33E-7	14.00		6.51	3.32
	L0000409	607722.15	4124547.31	60.47	3.57	1.33E-7	14.00		6.51	3.32
	L0000410	607732.12	4124537.48	60.63	3.57	1.33E-7	14.00		6.51	3.32
	L0000411	607742.06	4124527.62	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000412	607752.59	4124518.41	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000413	607763.18	4124509.25	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000414	607773.77	4124500.08	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000415	607784.95	4124491.68	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000416	607796.26	4124483.42	60.69	3.57	1.33E-7	14.00		6.51	3.32
	L0000417	607807.56	4124475.15	60.81	3.57	1.33E-7	14.00		6.51	3.32
	L0000418	607818.86	4124466.89	60.93	3.57	1.33E-7	14.00		6.51	3.32
	L0000419	607830.16	4124458.63	61.03	3.57	1.33E-7	14.00		6.51	3.32
	L0000420	607841.46	4124450.37	61.14	3.57	1.33E-7	14.00		6.51	3.32
	L0000421	607852.76	4124442.10	61.26	3.57	1.33E-7	14.00		6.51	3.32
	L0000422	607863.20	4124432.79	61.37	3.57	1.33E-7	14.00		6.51	3.32
	L0000423	607873.44	4124423.25	61.47	3.57	1.33E-7	14.00		6.51	3.32
	L0000424	607883.68	4124413.70	61.57	3.57	1.33E-7	14.00		6.51	3.32
	L0000425	607893.93	4124404.16	61.57	3.57	1.33E-7	14.00		6.51	3.32
	L0000426	607904.17	4124394.62	61.57	3.57	1.33E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000427	607914.41	4124385.07	61.58	3.57	1.33E-7	14.00		6.51	3.32
	L0000428	607924.65	4124375.53	61.64	3.57	1.33E-7	14.00		6.51	3.32
	L0000429	607934.90	4124365.98	61.64	3.57	1.33E-7	14.00		6.51	3.32
	L0000430	607945.14	4124356.44	61.59	3.57	1.33E-7	14.00		6.51	3.32
	L0000431	607955.27	4124346.78	61.65	3.57	1.33E-7	14.00		6.51	3.32
	L0000432	607965.30	4124337.01	61.65	3.57	1.33E-7	14.00		6.51	3.32
	L0000433	607975.34	4124327.25	61.60	3.57	1.33E-7	14.00		6.51	3.32
	L0000434	607985.37	4124317.49	61.69	3.57	1.33E-7	14.00		6.51	3.32
	L0000435	607995.40	4124307.72	61.79	3.57	1.33E-7	14.00		6.51	3.32
	L0000436	608004.79	4124297.34	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000437	608014.19	4124286.96	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000438	608023.07	4124276.15	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000439	608031.62	4124265.06	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000440	608040.01	4124253.87	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000441	608047.39	4124241.97	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000442	608054.76	4124230.07	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000443	608062.13	4124218.16	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000444	608069.42	4124206.21	61.88	3.57	1.33E-7	14.00		6.51	3.32
	L0000445	608076.61	4124194.20	62.00	3.57	1.33E-7	14.00		6.51	3.32
	L0000446	608083.79	4124182.18	62.12	3.57	1.33E-7	14.00		6.51	3.32
	L0000447	608091.38	4124170.45	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000448	608100.07	4124159.47	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000449	608108.76	4124148.49	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000450	608117.56	4124137.61	62.27	3.57	1.33E-7	14.00		6.51	3.32
	L0000451	608126.90	4124127.18	62.37	3.57	1.33E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000452	608136.24	4124116.75	62.48	3.57	1.33E-7	14.00		6.51	3.32
	L0000453	608145.85	4124106.58	62.58	3.57	1.33E-7	14.00		6.51	3.32
	L0000454	608156.02	4124096.97	62.68	3.57	1.33E-7	14.00		6.51	3.32
	L0000455	608166.20	4124087.35	62.78	3.57	1.33E-7	14.00		6.51	3.32
	L0000456	608176.38	4124077.74	62.94	3.57	1.33E-7	14.00		6.51	3.32
	L0000457	608186.56	4124068.13	63.16	3.57	1.33E-7	14.00		6.51	3.32
	L0000458	608197.12	4124058.95	63.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000459	608207.79	4124049.88	63.52	3.57	1.33E-7	14.00		6.51	3.32
	L0000460	608218.46	4124040.82	63.71	3.57	1.33E-7	14.00		6.51	3.32
	L0000461	608230.25	4124033.30	63.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000462	608242.20	4124026.01	64.01	3.57	1.33E-7	14.00		6.51	3.32
	L0000463	608254.15	4124018.71	64.11	3.57	1.33E-7	14.00		6.51	3.32

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000464	607731.33	4124300.47	60.94	3.57	1.51E-7	14.00		6.51	3.32
	L0000465	607741.18	4124310.42	61.00	3.57	1.51E-7	14.00		6.51	3.32
	L0000466	607751.03	4124320.37	61.10	3.57	1.51E-7	14.00		6.51	3.32
	L0000467	607760.88	4124330.32	61.24	3.57	1.51E-7	14.00		6.51	3.32
	L0000468	607770.73	4124340.27	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000469	607780.58	4124350.22	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000470	607790.43	4124360.16	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000471	607800.28	4124370.11	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000472	607809.04	4124380.99	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000473	607817.34	4124392.26	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000474	607825.64	4124403.54	61.26	3.57	1.51E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000475	607833.94	4124414.81	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000476	607842.24	4124426.09	61.23	3.57	1.51E-7	14.00		6.51	3.32
	L0000477	607850.24	4124437.57	61.24	3.57	1.51E-7	14.00		6.51	3.32
	L0000478	607858.16	4124449.12	61.31	3.57	1.51E-7	14.00		6.51	3.32
	L0000479	607866.07	4124460.67	61.39	3.57	1.51E-7	14.00		6.51	3.32
	L0000480	607873.98	4124472.22	61.47	3.57	1.51E-7	14.00		6.51	3.32
	L0000481	607881.89	4124483.77	61.56	3.57	1.51E-7	14.00		6.51	3.32
	L0000482	607888.98	4124495.81	61.63	3.57	1.51E-7	14.00		6.51	3.32
	L0000483	607895.29	4124508.31	61.69	3.57	1.51E-7	14.00		6.51	3.32
	L0000484	607901.60	4124520.80	61.76	3.57	1.51E-7	14.00		6.51	3.32
	L0000485	607905.10	4124534.26	61.79	3.57	1.51E-7	14.00		6.51	3.32
	L0000486	607907.79	4124548.00	61.91	3.57	1.51E-7	14.00		6.51	3.32
	L0000487	607910.48	4124561.74	62.08	3.57	1.51E-7	14.00		6.51	3.32
	L0000488	607912.47	4124575.56	62.53	3.57	1.51E-7	14.00		6.51	3.32
	L0000489	607912.92	4124589.55	63.11	3.57	1.51E-7	14.00		6.51	3.32
	L0000490	607911.85	4124603.46	64.05	3.57	1.51E-7	14.00		6.51	3.32
	L0000491	607909.87	4124617.32	65.31	3.57	1.51E-7	14.00		6.51	3.32
	L0000492	607906.59	4124630.90	66.61	3.57	1.51E-7	14.00		6.51	3.32
	L0000493	607902.67	4124644.34	68.25	3.57	1.51E-7	14.00		6.51	3.32
	L0000494	607898.22	4124657.59	69.80	3.57	1.51E-7	14.00		6.51	3.32
	L0000495	607892.64	4124670.42	70.99	3.57	1.51E-7	14.00		6.51	3.32
	L0000496	607884.54	4124681.84	71.56	3.57	1.51E-7	14.00		6.51	3.32
	L0000497	607876.44	4124693.26	72.15	3.57	1.51E-7	14.00		6.51	3.32
	L0000498	607868.34	4124704.68	72.73	3.57	1.51E-7	14.00		6.51	3.32
	L0000499	607859.72	4124715.65	73.23	3.57	1.51E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000500	607849.71	4124725.44	74.10	3.57	1.51E-7	14.00		6.51	3.32
	L0000501	607839.71	4124735.23	75.09	3.57	1.51E-7	14.00		6.51	3.32
	L0000502	607829.70	4124745.03	76.07	3.57	1.51E-7	14.00		6.51	3.32
	L0000503	607819.69	4124754.82	77.73	3.57	1.51E-7	14.00		6.51	3.32
	L0000504	607809.69	4124764.61	79.43	3.57	1.51E-7	14.00		6.51	3.32
	L0000505	607799.68	4124774.40	81.07	3.57	1.51E-7	14.00		6.51	3.32
	L0000506	607789.67	4124784.19	82.78	3.57	1.51E-7	14.00		6.51	3.32

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000507	607949.47	4124088.39	61.94	3.57	4.06E-8	9.00		4.19	3.32
	L0000508	607955.81	4124094.78	62.00	3.57	4.06E-8	9.00		4.19	3.32
	L0000509	607962.16	4124101.16	62.07	3.57	4.06E-8	9.00		4.19	3.32
	L0000510	607968.50	4124107.55	62.13	3.57	4.06E-8	9.00		4.19	3.32
	L0000511	607974.84	4124113.93	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000512	607981.19	4124120.32	62.15	3.57	4.06E-8	9.00		4.19	3.32
	L0000513	607987.53	4124126.70	62.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000514	607993.87	4124133.09	62.13	3.57	4.06E-8	9.00		4.19	3.32
	L0000515	608000.21	4124139.47	62.16	3.57	4.06E-8	9.00		4.19	3.32
	L0000516	608006.56	4124145.86	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000517	608012.90	4124152.24	62.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000518	608019.24	4124158.62	62.05	3.57	4.06E-8	9.00		4.19	3.32
	L0000519	608025.59	4124165.01	61.99	3.57	4.06E-8	9.00		4.19	3.32
	L0000520	608031.93	4124171.39	61.92	3.57	4.06E-8	9.00		4.19	3.32
	L0000521	608038.27	4124177.78	61.92	3.57	4.06E-8	9.00		4.19	3.32
	L0000522	608044.62	4124184.16	61.96	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000523	608050.96	4124190.55	61.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000524	608057.28	4124196.96	61.95	3.57	4.06E-8	9.00		4.19	3.32
	L0000525	608063.52	4124203.44	61.90	3.57	4.06E-8	9.00		4.19	3.32
	L0000526	608069.77	4124209.92	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000527	608076.01	4124216.40	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000528	608082.26	4124222.88	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000529	608088.50	4124229.36	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000530	608094.74	4124235.85	61.89	3.57	4.06E-8	9.00		4.19	3.32
	L0000531	608100.99	4124242.33	62.01	3.57	4.06E-8	9.00		4.19	3.32
	L0000532	608107.10	4124248.93	62.14	3.57	4.06E-8	9.00		4.19	3.32
	L0000533	608113.07	4124255.67	62.27	3.57	4.06E-8	9.00		4.19	3.32
	L0000534	608119.04	4124262.40	62.40	3.57	4.06E-8	9.00		4.19	3.32
	L0000535	608125.01	4124269.14	62.48	3.57	4.06E-8	9.00		4.19	3.32
	L0000536	608130.97	4124275.88	62.46	3.57	4.06E-8	9.00		4.19	3.32
	L0000537	608136.94	4124282.61	62.41	3.57	4.06E-8	9.00		4.19	3.32
	L0000538	608142.91	4124289.35	62.33	3.57	4.06E-8	9.00		4.19	3.32
	L0000539	608148.93	4124296.04	62.23	3.57	4.06E-8	9.00		4.19	3.32
	L0000540	608155.24	4124302.46	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000541	608161.54	4124308.88	62.21	3.57	4.06E-8	9.00		4.19	3.32
	L0000542	608167.84	4124315.30	62.27	3.57	4.06E-8	9.00		4.19	3.32
	L0000543	608174.15	4124321.73	62.36	3.57	4.06E-8	9.00		4.19	3.32
	L0000544	608180.45	4124328.15	62.47	3.57	4.06E-8	9.00		4.19	3.32
	L0000545	608186.76	4124334.57	62.66	3.57	4.06E-8	9.00		4.19	3.32
	L0000546	608193.06	4124341.00	62.93	3.57	4.06E-8	9.00		4.19	3.32
	L0000547	608199.37	4124347.42	63.25	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000548	608205.67	4124353.84	63.63	3.57	4.06E-8	9.00		4.19	3.32
	L0000549	608212.80	4124359.20	64.25	3.57	4.06E-8	9.00		4.19	3.32
	L0000550	608221.35	4124361.86	65.10	3.57	4.06E-8	9.00		4.19	3.32
	L0000551	608230.31	4124362.62	65.88	3.57	4.06E-8	9.00		4.19	3.32
	L0000552	608239.06	4124360.92	66.21	3.57	4.06E-8	9.00		4.19	3.32
	L0000553	608246.37	4124355.79	65.66	3.57	4.06E-8	9.00		4.19	3.32
	L0000554	608252.87	4124349.55	65.58	3.57	4.06E-8	9.00		4.19	3.32
	L0000555	608259.36	4124343.32	65.40	3.57	4.06E-8	9.00		4.19	3.32
	L0000556	608265.85	4124337.09	65.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000557	608272.34	4124330.85	64.71	3.57	4.06E-8	9.00		4.19	3.32
	L0000558	608278.83	4124324.62	64.78	3.57	4.06E-8	9.00		4.19	3.32
	L0000559	608285.32	4124318.38	65.10	3.57	4.06E-8	9.00		4.19	3.32
	L0000560	608291.81	4124312.15	65.24	3.57	4.06E-8	9.00		4.19	3.32
	L0000561	608298.31	4124305.92	65.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000562	608304.80	4124299.68	65.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000563	608311.29	4124293.45	65.15	3.57	4.06E-8	9.00		4.19	3.32
	L0000564	608317.78	4124287.22	65.34	3.57	4.06E-8	9.00		4.19	3.32
	L0000565	608324.27	4124280.98	65.42	3.57	4.06E-8	9.00		4.19	3.32
	L0000566	608330.76	4124274.75	65.39	3.57	4.06E-8	9.00		4.19	3.32
	L0000567	608337.26	4124268.51	65.37	3.57	4.06E-8	9.00		4.19	3.32
	L0000568	608343.75	4124262.28	65.51	3.57	4.06E-8	9.00		4.19	3.32
	L0000569	608350.24	4124256.05	65.69	3.57	4.06E-8	9.00		4.19	3.32
	L0000570	608356.73	4124249.81	65.82	3.57	4.06E-8	9.00		4.19	3.32
	L0000571	608363.22	4124243.58	65.89	3.57	4.06E-8	9.00		4.19	3.32
	L0000572	608369.71	4124237.35	65.92	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000573	608376.20	4124231.11	65.95	3.57	4.06E-8	9.00		4.19	3.32
	L0000574	608382.70	4124224.88	65.98	3.57	4.06E-8	9.00		4.19	3.32
	L0000575	608389.19	4124218.64	65.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000576	608395.68	4124212.41	65.99	3.57	4.06E-8	9.00		4.19	3.32
	L0000577	608402.17	4124206.18	65.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000578	608408.66	4124199.94	66.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000579	608415.15	4124193.71	66.03	3.57	4.06E-8	9.00		4.19	3.32
	L0000580	608421.64	4124187.48	66.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000581	608428.14	4124181.24	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000582	608434.63	4124175.01	66.06	3.57	4.06E-8	9.00		4.19	3.32
	L0000583	608441.12	4124168.77	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000584	608447.61	4124162.54	66.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000585	608454.10	4124156.31	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000586	608460.59	4124150.07	66.20	3.57	4.06E-8	9.00		4.19	3.32

Receptor Pathway

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	608088.30	4124316.02		62.47	
2	608106.26	4124331.21		62.32	
3	607967.54	4124174.89		61.87	
4	608006.31	4124214.29		61.87	
5	608363.65	4124322.16		75.48	
6	608558.95	4124252.02		116.10	
7	608424.56	4124268.37		75.27	
8	608470.72	4124205.86		75.95	

Plant Boundary Receptors

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: C:\Users\lpark\Desktop\5458.0005 Piercy Rd Warehouse\Modeling\AERMOD\724946\724946.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: C:\Users\lpark\Desktop\5458.0005 Piercy Rd Warehouse\Modeling\AERMOD\724946\724946.PFL
Format Type: Default AERMET format

Wind Speed

☑ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 40.50 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2009			Reid-Hillview Airport
Upper Air		2009			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2009 Start Hour: 1 End Date: 1/2/2014 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Sensitive Receptor Summary

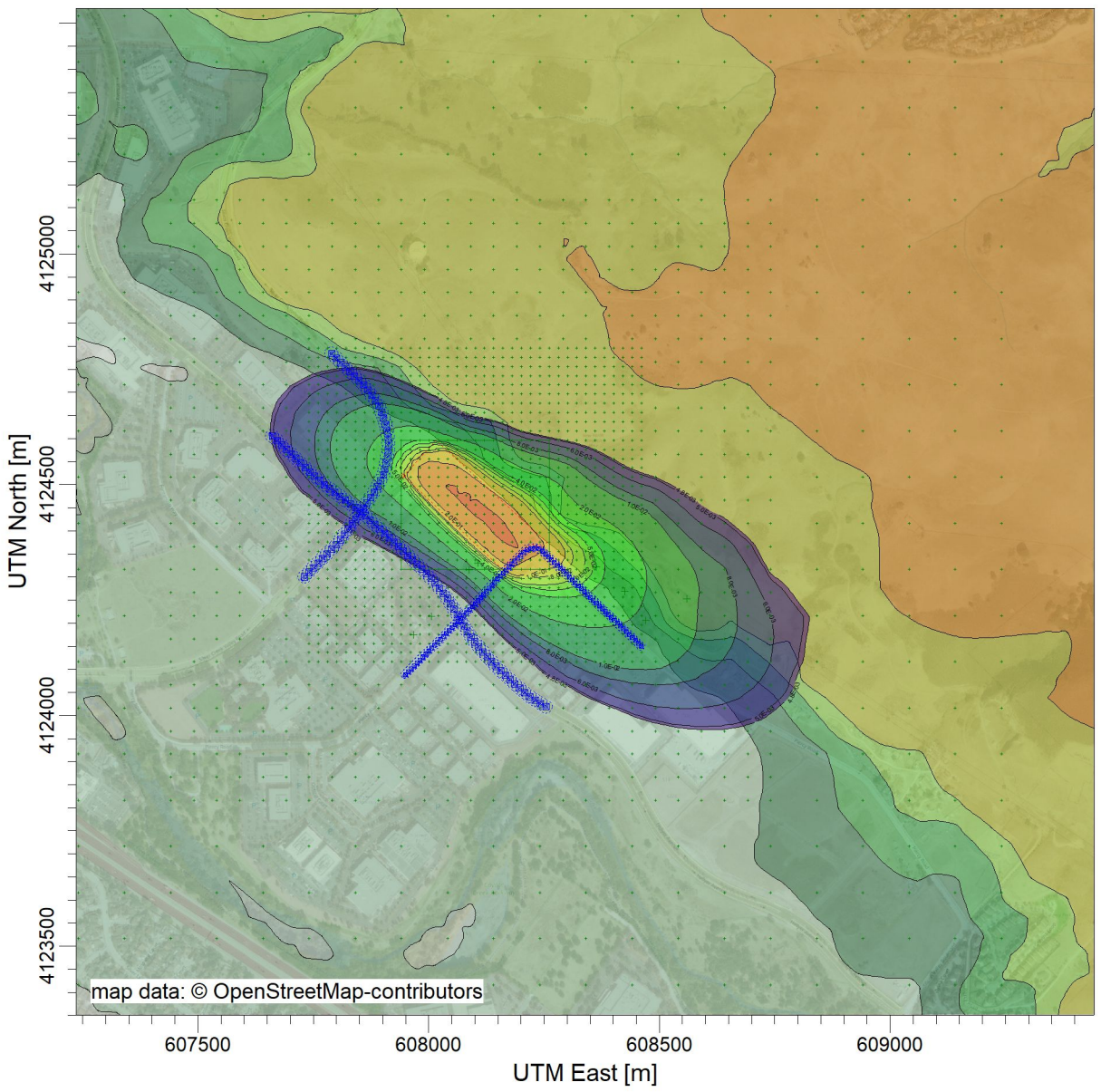
C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd

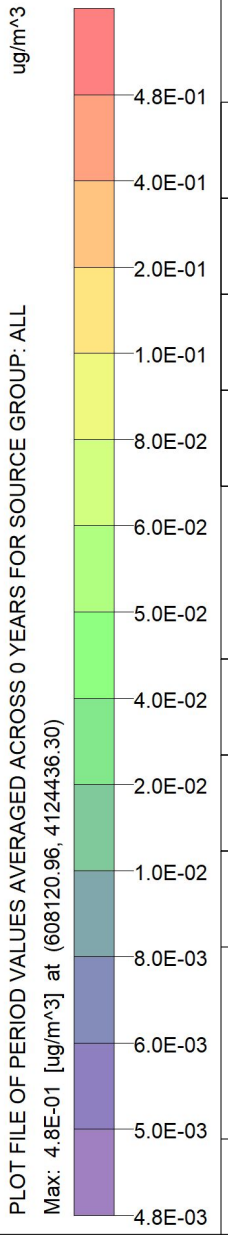
PM2.5 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.01493	ug/m^3	R-1	608088.30	4124316.02	62.47	1.50	330.10	
PERIOD		0.03168	ug/m^3	R-2	608106.26	4124331.21	62.32	1.50	330.10	
PERIOD		0.00114	ug/m^3	R-3	607967.54	4124174.89	61.87	1.50	330.10	
PERIOD		0.00184	ug/m^3	R-4	608006.31	4124214.29	61.87	1.50	330.10	
PERIOD		0.04704	ug/m^3	R-5	608363.65	4124322.16	75.48	1.50	330.10	
PERIOD		0.01094	ug/m^3	R-6	608558.95	4124252.02	116.10	1.50	330.10	
PERIOD		0.02701	ug/m^3	R-7	608424.56	4124268.37	75.27	1.50	330.10	
PERIOD		0.01709	ug/m^3	R-8	608470.72	4124205.86	75.95	1.50	330.10	

PROJECT TITLE:

C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd





COMMENTS:

SOURCES:

4

RECEPTORS:

2202

OUTPUT TYPE:

Concentration

MAX:

4.8E-01 ug/m^3

COMPANY NAME:

MODELER:

DATE:

9/25/2021

SCALE: 1:14,853

0 0.4 km

PROJECT NO.:

Control Pathway

Dispersion Options

Titles

C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd Mitigated

Dispersion Options

☐ Regulatory Default ☒ Non-Default Options

☒ Flat & Elevated Terrain
☐ No Stack-Tip Downwash (NOSTD)
☐ Run in Screening Mode
☐ Conversion of NOx to NO2 (OLM or PVMRM)
☐ No Checks for Non-Sequential Met Data
☒ Fast All Sources (FASTALL)
☐ Fast Area Sources (FASTAREA)
☐ Optimized Area Source Plume Depletion
☐ Gas Deposition

BETA Options:

☐ Capped and Horizontal Stack Releases
☐ Adjusted Friction Velocity (u*) in AERMET (ADJ_U*)
☐ Low Wind Options

☐ SCIM (Sampled Chronological Input Model)
☐ Ignore Urban Night / Daytime Transition (NOURBTRAN)

Dispersion Coefficient

Urban
Population:
Name (Optional):
Roughness Length:

Output Type

☒ Concentration
☐ Total Deposition (Dry & Wet)
☐ Dry Deposition
☐ Wet Deposition

Plume Depletion

☐ Dry Removal
☐ Wet Removal

Output Warnings

☐ No Output Warnings
☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24

☐ Month ☒ Period ☐ Annual

Exponential Decay

☐ Yes ☒ No

Terrain Height Options

☐ Flat ☒ Elevated
SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

☒ Yes ☐ No

Default Height = 1.50 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: 54580005 Piercy Rd - Mitigated.err

Source Pathway - Source Inputs

Polygon Area Sources

Source Type: AREA POLY

Source: SITE (Project Site)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
62.04	3.00	1.24E-8		8	607945.57	4124519.75
		1.24E-8			608158.89	4124317.00
		1.24E-8			608206.70	4124362.98
		1.24E-8			608224.17	4124370.33
		1.24E-8			608238.88	4124367.57
		1.24E-8			608246.70	4124364.36
		1.24E-8			608256.36	4124374.93
		1.24E-8			608016.37	4124595.61

Source Pathway - Source Inputs

Line Volume Sources

Source Type: LINE VOLUME

Source: HELLYER (Hellyer Ave)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
14.00	8.13E-6		607656.40	4124610.23	60.20	3.57
			607723.64	4124545.88	60.55	3.57
			607742.86	4124526.83	60.66	3.57
			607775.44	4124498.64	60.66	3.57
			607854.80	4124440.62	61.26	3.57
			607949.82	4124352.08	61.58	3.57
			607995.32	4124307.81	61.78	3.57
			608017.91	4124282.84	61.89	3.57
			608039.02	4124255.48	61.87	3.57
			608066.38	4124211.31	61.89	3.57
			608089.05	4124173.40	62.18	3.57
			608116.01	4124139.34	62.21	3.57
			608142.56	4124109.68	62.52	3.57
			608188.58	4124066.21	63.39	3.57
			608203.67	4124053.38	63.45	3.57
			608219.80	4124039.67	63.99	3.57
			608256.75	4124017.13	64.06	3.57

Source Pathway - Source Inputs

AERMOD

Source Type: LINE VOLUME
Source: PIERCY (Piercy Rd)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
9.00	3.25E-6		607946.30	4124085.20	61.88	3.57
			608055.84	4124195.46	61.92	3.57
			608104.30	4124245.76	61.99	3.57
			608147.90	4124294.99	62.23	3.57
			608208.10	4124356.32	63.87	3.57
			608211.31	4124358.52	63.95	3.57
			608215.01	4124360.22	63.98	3.57
			608219.78	4124361.68	64.03	3.57
			608225.79	4124362.37	64.48	3.57
			608231.41	4124362.68	64.86	3.57
			608237.42	4124361.68	65.23	3.57
			608241.27	4124359.91	65.41	3.57
			608244.89	4124357.21	65.51	3.57
			608465.55	4124145.31	65.97	3.57

Source Pathway - Source Inputs

AERMOD

Source Type: LINE VOLUME

Source: SCV (Silver Creek Valley Rd)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
14.00	6.50E-6		607726.40	4124295.50	60.90	3.57
			607803.24	4124373.11	61.26	3.57
			607844.21	4124428.77	61.29	3.57
			607885.73	4124489.37	61.57	3.57
			607903.02	4124523.60	61.80	3.57
			607912.32	4124571.13	62.16	3.57
			607913.09	4124594.79	63.38	3.57
			607909.21	4124621.94	66.17	3.57
			607900.03	4124653.38	69.41	3.57
			607892.87	4124670.11	72.71	3.57
			607862.45	4124712.98	73.02	3.57
			607786.15	4124787.64	79.93	3.57

Source Pathway - Source Inputs

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000403	607661.46	4124605.39	60.31	3.57	1.33E-7	14.00		6.51	3.32
	L0000404	607671.57	4124595.71	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000405	607681.69	4124586.03	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000406	607691.80	4124576.35	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000407	607701.92	4124566.67	60.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000408	607712.03	4124556.99	60.38	3.57	1.33E-7	14.00		6.51	3.32
	L0000409	607722.15	4124547.31	60.47	3.57	1.33E-7	14.00		6.51	3.32
	L0000410	607732.12	4124537.48	60.63	3.57	1.33E-7	14.00		6.51	3.32
	L0000411	607742.06	4124527.62	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000412	607752.59	4124518.41	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000413	607763.18	4124509.25	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000414	607773.77	4124500.08	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000415	607784.95	4124491.68	60.66	3.57	1.33E-7	14.00		6.51	3.32
	L0000416	607796.26	4124483.42	60.69	3.57	1.33E-7	14.00		6.51	3.32
	L0000417	607807.56	4124475.15	60.81	3.57	1.33E-7	14.00		6.51	3.32
	L0000418	607818.86	4124466.89	60.93	3.57	1.33E-7	14.00		6.51	3.32
	L0000419	607830.16	4124458.63	61.03	3.57	1.33E-7	14.00		6.51	3.32
	L0000420	607841.46	4124450.37	61.14	3.57	1.33E-7	14.00		6.51	3.32
	L0000421	607852.76	4124442.10	61.26	3.57	1.33E-7	14.00		6.51	3.32
	L0000422	607863.20	4124432.79	61.37	3.57	1.33E-7	14.00		6.51	3.32
	L0000423	607873.44	4124423.25	61.47	3.57	1.33E-7	14.00		6.51	3.32
	L0000424	607883.68	4124413.70	61.57	3.57	1.33E-7	14.00		6.51	3.32
	L0000425	607893.93	4124404.16	61.57	3.57	1.33E-7	14.00		6.51	3.32
	L0000426	607904.17	4124394.62	61.57	3.57	1.33E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000427	607914.41	4124385.07	61.58	3.57	1.33E-7	14.00		6.51	3.32
	L0000428	607924.65	4124375.53	61.64	3.57	1.33E-7	14.00		6.51	3.32
	L0000429	607934.90	4124365.98	61.64	3.57	1.33E-7	14.00		6.51	3.32
	L0000430	607945.14	4124356.44	61.59	3.57	1.33E-7	14.00		6.51	3.32
	L0000431	607955.27	4124346.78	61.65	3.57	1.33E-7	14.00		6.51	3.32
	L0000432	607965.30	4124337.01	61.65	3.57	1.33E-7	14.00		6.51	3.32
	L0000433	607975.34	4124327.25	61.60	3.57	1.33E-7	14.00		6.51	3.32
	L0000434	607985.37	4124317.49	61.69	3.57	1.33E-7	14.00		6.51	3.32
	L0000435	607995.40	4124307.72	61.79	3.57	1.33E-7	14.00		6.51	3.32
	L0000436	608004.79	4124297.34	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000437	608014.19	4124286.96	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000438	608023.07	4124276.15	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000439	608031.62	4124265.06	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000440	608040.01	4124253.87	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000441	608047.39	4124241.97	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000442	608054.76	4124230.07	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000443	608062.13	4124218.16	61.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000444	608069.42	4124206.21	61.88	3.57	1.33E-7	14.00		6.51	3.32
	L0000445	608076.61	4124194.20	62.00	3.57	1.33E-7	14.00		6.51	3.32
	L0000446	608083.79	4124182.18	62.12	3.57	1.33E-7	14.00		6.51	3.32
	L0000447	608091.38	4124170.45	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000448	608100.07	4124159.47	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000449	608108.76	4124148.49	62.18	3.57	1.33E-7	14.00		6.51	3.32
	L0000450	608117.56	4124137.61	62.27	3.57	1.33E-7	14.00		6.51	3.32
	L0000451	608126.90	4124127.18	62.37	3.57	1.33E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
HELLYER	L0000452	608136.24	4124116.75	62.48	3.57	1.33E-7	14.00		6.51	3.32
	L0000453	608145.85	4124106.58	62.58	3.57	1.33E-7	14.00		6.51	3.32
	L0000454	608156.02	4124096.97	62.68	3.57	1.33E-7	14.00		6.51	3.32
	L0000455	608166.20	4124087.35	62.78	3.57	1.33E-7	14.00		6.51	3.32
	L0000456	608176.38	4124077.74	62.94	3.57	1.33E-7	14.00		6.51	3.32
	L0000457	608186.56	4124068.13	63.16	3.57	1.33E-7	14.00		6.51	3.32
	L0000458	608197.12	4124058.95	63.35	3.57	1.33E-7	14.00		6.51	3.32
	L0000459	608207.79	4124049.88	63.52	3.57	1.33E-7	14.00		6.51	3.32
	L0000460	608218.46	4124040.82	63.71	3.57	1.33E-7	14.00		6.51	3.32
	L0000461	608230.25	4124033.30	63.87	3.57	1.33E-7	14.00		6.51	3.32
	L0000462	608242.20	4124026.01	64.01	3.57	1.33E-7	14.00		6.51	3.32
	L0000463	608254.15	4124018.71	64.11	3.57	1.33E-7	14.00		6.51	3.32

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000464	607731.33	4124300.47	60.94	3.57	1.51E-7	14.00		6.51	3.32
	L0000465	607741.18	4124310.42	61.00	3.57	1.51E-7	14.00		6.51	3.32
	L0000466	607751.03	4124320.37	61.10	3.57	1.51E-7	14.00		6.51	3.32
	L0000467	607760.88	4124330.32	61.24	3.57	1.51E-7	14.00		6.51	3.32
	L0000468	607770.73	4124340.27	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000469	607780.58	4124350.22	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000470	607790.43	4124360.16	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000471	607800.28	4124370.11	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000472	607809.04	4124380.99	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000473	607817.34	4124392.26	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000474	607825.64	4124403.54	61.26	3.57	1.51E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000475	607833.94	4124414.81	61.26	3.57	1.51E-7	14.00		6.51	3.32
	L0000476	607842.24	4124426.09	61.23	3.57	1.51E-7	14.00		6.51	3.32
	L0000477	607850.24	4124437.57	61.24	3.57	1.51E-7	14.00		6.51	3.32
	L0000478	607858.16	4124449.12	61.31	3.57	1.51E-7	14.00		6.51	3.32
	L0000479	607866.07	4124460.67	61.39	3.57	1.51E-7	14.00		6.51	3.32
	L0000480	607873.98	4124472.22	61.47	3.57	1.51E-7	14.00		6.51	3.32
	L0000481	607881.89	4124483.77	61.56	3.57	1.51E-7	14.00		6.51	3.32
	L0000482	607888.98	4124495.81	61.63	3.57	1.51E-7	14.00		6.51	3.32
	L0000483	607895.29	4124508.31	61.69	3.57	1.51E-7	14.00		6.51	3.32
	L0000484	607901.60	4124520.80	61.76	3.57	1.51E-7	14.00		6.51	3.32
	L0000485	607905.10	4124534.26	61.79	3.57	1.51E-7	14.00		6.51	3.32
	L0000486	607907.79	4124548.00	61.91	3.57	1.51E-7	14.00		6.51	3.32
	L0000487	607910.48	4124561.74	62.08	3.57	1.51E-7	14.00		6.51	3.32
	L0000488	607912.47	4124575.56	62.53	3.57	1.51E-7	14.00		6.51	3.32
	L0000489	607912.92	4124589.55	63.11	3.57	1.51E-7	14.00		6.51	3.32
	L0000490	607911.85	4124603.46	64.05	3.57	1.51E-7	14.00		6.51	3.32
	L0000491	607909.87	4124617.32	65.31	3.57	1.51E-7	14.00		6.51	3.32
	L0000492	607906.59	4124630.90	66.61	3.57	1.51E-7	14.00		6.51	3.32
	L0000493	607902.67	4124644.34	68.25	3.57	1.51E-7	14.00		6.51	3.32
	L0000494	607898.22	4124657.59	69.80	3.57	1.51E-7	14.00		6.51	3.32
	L0000495	607892.64	4124670.42	70.99	3.57	1.51E-7	14.00		6.51	3.32
	L0000496	607884.54	4124681.84	71.56	3.57	1.51E-7	14.00		6.51	3.32
	L0000497	607876.44	4124693.26	72.15	3.57	1.51E-7	14.00		6.51	3.32
	L0000498	607868.34	4124704.68	72.73	3.57	1.51E-7	14.00		6.51	3.32
	L0000499	607859.72	4124715.65	73.23	3.57	1.51E-7	14.00		6.51	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SCV	L0000500	607849.71	4124725.44	74.10	3.57	1.51E-7	14.00		6.51	3.32
	L0000501	607839.71	4124735.23	75.09	3.57	1.51E-7	14.00		6.51	3.32
	L0000502	607829.70	4124745.03	76.07	3.57	1.51E-7	14.00		6.51	3.32
	L0000503	607819.69	4124754.82	77.73	3.57	1.51E-7	14.00		6.51	3.32
	L0000504	607809.69	4124764.61	79.43	3.57	1.51E-7	14.00		6.51	3.32
	L0000505	607799.68	4124774.40	81.07	3.57	1.51E-7	14.00		6.51	3.32
	L0000506	607789.67	4124784.19	82.78	3.57	1.51E-7	14.00		6.51	3.32

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000507	607949.47	4124088.39	61.94	3.57	4.06E-8	9.00		4.19	3.32
	L0000508	607955.81	4124094.78	62.00	3.57	4.06E-8	9.00		4.19	3.32
	L0000509	607962.16	4124101.16	62.07	3.57	4.06E-8	9.00		4.19	3.32
	L0000510	607968.50	4124107.55	62.13	3.57	4.06E-8	9.00		4.19	3.32
	L0000511	607974.84	4124113.93	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000512	607981.19	4124120.32	62.15	3.57	4.06E-8	9.00		4.19	3.32
	L0000513	607987.53	4124126.70	62.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000514	607993.87	4124133.09	62.13	3.57	4.06E-8	9.00		4.19	3.32
	L0000515	608000.21	4124139.47	62.16	3.57	4.06E-8	9.00		4.19	3.32
	L0000516	608006.56	4124145.86	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000517	608012.90	4124152.24	62.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000518	608019.24	4124158.62	62.05	3.57	4.06E-8	9.00		4.19	3.32
	L0000519	608025.59	4124165.01	61.99	3.57	4.06E-8	9.00		4.19	3.32
	L0000520	608031.93	4124171.39	61.92	3.57	4.06E-8	9.00		4.19	3.32
	L0000521	608038.27	4124177.78	61.92	3.57	4.06E-8	9.00		4.19	3.32
	L0000522	608044.62	4124184.16	61.96	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000523	608050.96	4124190.55	61.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000524	608057.28	4124196.96	61.95	3.57	4.06E-8	9.00		4.19	3.32
	L0000525	608063.52	4124203.44	61.90	3.57	4.06E-8	9.00		4.19	3.32
	L0000526	608069.77	4124209.92	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000527	608076.01	4124216.40	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000528	608082.26	4124222.88	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000529	608088.50	4124229.36	61.87	3.57	4.06E-8	9.00		4.19	3.32
	L0000530	608094.74	4124235.85	61.89	3.57	4.06E-8	9.00		4.19	3.32
	L0000531	608100.99	4124242.33	62.01	3.57	4.06E-8	9.00		4.19	3.32
	L0000532	608107.10	4124248.93	62.14	3.57	4.06E-8	9.00		4.19	3.32
	L0000533	608113.07	4124255.67	62.27	3.57	4.06E-8	9.00		4.19	3.32
	L0000534	608119.04	4124262.40	62.40	3.57	4.06E-8	9.00		4.19	3.32
	L0000535	608125.01	4124269.14	62.48	3.57	4.06E-8	9.00		4.19	3.32
	L0000536	608130.97	4124275.88	62.46	3.57	4.06E-8	9.00		4.19	3.32
	L0000537	608136.94	4124282.61	62.41	3.57	4.06E-8	9.00		4.19	3.32
	L0000538	608142.91	4124289.35	62.33	3.57	4.06E-8	9.00		4.19	3.32
	L0000539	608148.93	4124296.04	62.23	3.57	4.06E-8	9.00		4.19	3.32
	L0000540	608155.24	4124302.46	62.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000541	608161.54	4124308.88	62.21	3.57	4.06E-8	9.00		4.19	3.32
	L0000542	608167.84	4124315.30	62.27	3.57	4.06E-8	9.00		4.19	3.32
	L0000543	608174.15	4124321.73	62.36	3.57	4.06E-8	9.00		4.19	3.32
	L0000544	608180.45	4124328.15	62.47	3.57	4.06E-8	9.00		4.19	3.32
	L0000545	608186.76	4124334.57	62.66	3.57	4.06E-8	9.00		4.19	3.32
	L0000546	608193.06	4124341.00	62.93	3.57	4.06E-8	9.00		4.19	3.32
	L0000547	608199.37	4124347.42	63.25	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000548	608205.67	4124353.84	63.63	3.57	4.06E-8	9.00		4.19	3.32
	L0000549	608212.80	4124359.20	64.25	3.57	4.06E-8	9.00		4.19	3.32
	L0000550	608221.35	4124361.86	65.10	3.57	4.06E-8	9.00		4.19	3.32
	L0000551	608230.31	4124362.62	65.88	3.57	4.06E-8	9.00		4.19	3.32
	L0000552	608239.06	4124360.92	66.21	3.57	4.06E-8	9.00		4.19	3.32
	L0000553	608246.37	4124355.79	65.66	3.57	4.06E-8	9.00		4.19	3.32
	L0000554	608252.87	4124349.55	65.58	3.57	4.06E-8	9.00		4.19	3.32
	L0000555	608259.36	4124343.32	65.40	3.57	4.06E-8	9.00		4.19	3.32
	L0000556	608265.85	4124337.09	65.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000557	608272.34	4124330.85	64.71	3.57	4.06E-8	9.00		4.19	3.32
	L0000558	608278.83	4124324.62	64.78	3.57	4.06E-8	9.00		4.19	3.32
	L0000559	608285.32	4124318.38	65.10	3.57	4.06E-8	9.00		4.19	3.32
	L0000560	608291.81	4124312.15	65.24	3.57	4.06E-8	9.00		4.19	3.32
	L0000561	608298.31	4124305.92	65.18	3.57	4.06E-8	9.00		4.19	3.32
	L0000562	608304.80	4124299.68	65.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000563	608311.29	4124293.45	65.15	3.57	4.06E-8	9.00		4.19	3.32
	L0000564	608317.78	4124287.22	65.34	3.57	4.06E-8	9.00		4.19	3.32
	L0000565	608324.27	4124280.98	65.42	3.57	4.06E-8	9.00		4.19	3.32
	L0000566	608330.76	4124274.75	65.39	3.57	4.06E-8	9.00		4.19	3.32
	L0000567	608337.26	4124268.51	65.37	3.57	4.06E-8	9.00		4.19	3.32
	L0000568	608343.75	4124262.28	65.51	3.57	4.06E-8	9.00		4.19	3.32
	L0000569	608350.24	4124256.05	65.69	3.57	4.06E-8	9.00		4.19	3.32
	L0000570	608356.73	4124249.81	65.82	3.57	4.06E-8	9.00		4.19	3.32
	L0000571	608363.22	4124243.58	65.89	3.57	4.06E-8	9.00		4.19	3.32
	L0000572	608369.71	4124237.35	65.92	3.57	4.06E-8	9.00		4.19	3.32

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
PIERCY	L0000573	608376.20	4124231.11	65.95	3.57	4.06E-8	9.00		4.19	3.32
	L0000574	608382.70	4124224.88	65.98	3.57	4.06E-8	9.00		4.19	3.32
	L0000575	608389.19	4124218.64	65.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000576	608395.68	4124212.41	65.99	3.57	4.06E-8	9.00		4.19	3.32
	L0000577	608402.17	4124206.18	65.97	3.57	4.06E-8	9.00		4.19	3.32
	L0000578	608408.66	4124199.94	66.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000579	608415.15	4124193.71	66.03	3.57	4.06E-8	9.00		4.19	3.32
	L0000580	608421.64	4124187.48	66.02	3.57	4.06E-8	9.00		4.19	3.32
	L0000581	608428.14	4124181.24	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000582	608434.63	4124175.01	66.06	3.57	4.06E-8	9.00		4.19	3.32
	L0000583	608441.12	4124168.77	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000584	608447.61	4124162.54	66.12	3.57	4.06E-8	9.00		4.19	3.32
	L0000585	608454.10	4124156.31	66.11	3.57	4.06E-8	9.00		4.19	3.32
	L0000586	608460.59	4124150.07	66.20	3.57	4.06E-8	9.00		4.19	3.32

Receptor Pathway

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	608088.30	4124316.02		62.47	
2	608106.26	4124331.21		62.32	
3	607967.54	4124174.89		61.87	
4	608006.31	4124214.29		61.87	
5	608363.65	4124322.16		75.48	
6	608558.95	4124252.02		116.10	
7	608424.56	4124268.37		75.27	
8	608470.72	4124205.86		75.95	

Plant Boundary Receptors

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: C:\Users\lpark\Desktop\5458.0005 Piercy Rd Warehouse\Modeling\AERMOD\724946\724946.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: C:\Users\lpark\Desktop\5458.0005 Piercy Rd Warehouse\Modeling\AERMOD\724946\724946.PFL
Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 40.50 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2009			Reid-Hillview Airport
Upper Air		2009			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2009 Start Hour: 1 End Date: 1/2/2014 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Sensitive Receptor Summary

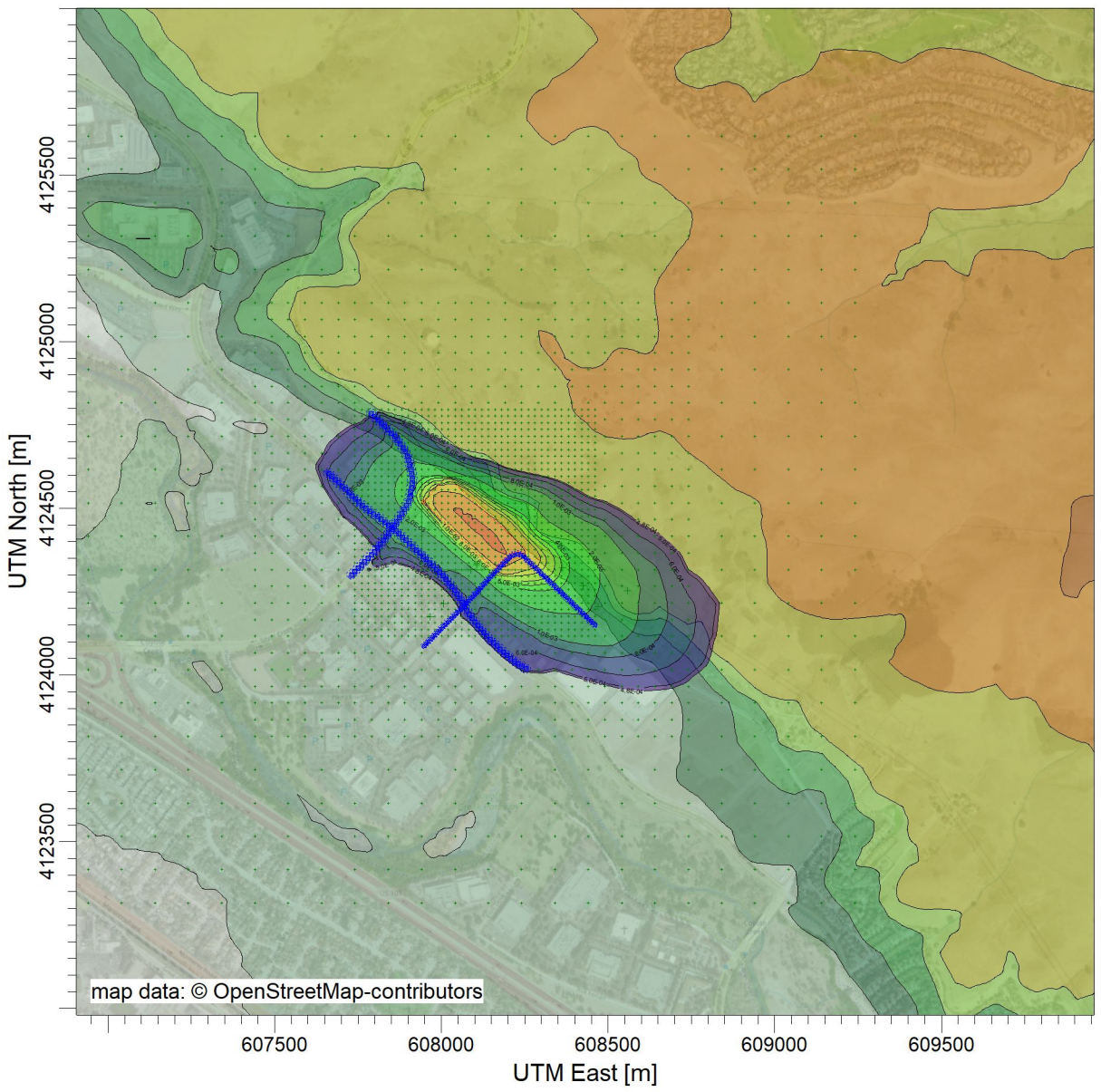
C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd Mitigated

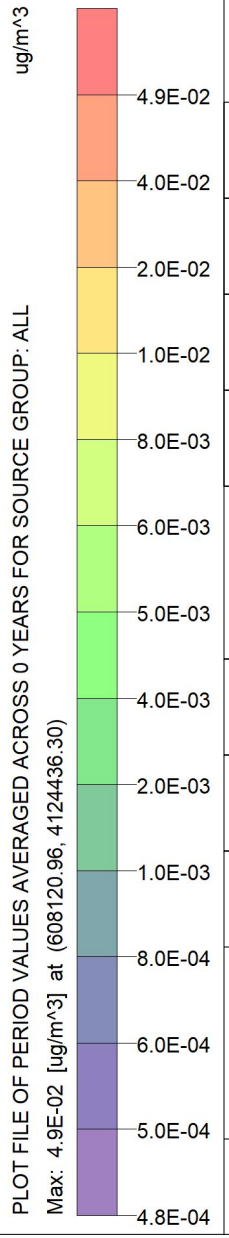
PM2.5 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.00167	ug/m^3	R-1	608088.30	4124316.02	62.47	1.50	330.10	
PERIOD		0.00333	ug/m^3	R-2	608106.26	4124331.21	62.32	1.50	330.10	
PERIOD		0.00018	ug/m^3	R-3	607967.54	4124174.89	61.87	1.50	330.10	
PERIOD		0.00030	ug/m^3	R-4	608006.31	4124214.29	61.87	1.50	330.10	
PERIOD		0.00483	ug/m^3	R-5	608363.65	4124322.16	75.48	1.50	330.10	
PERIOD		0.00113	ug/m^3	R-6	608558.95	4124252.02	116.10	1.50	330.10	
PERIOD		0.00280	ug/m^3	R-7	608424.56	4124268.37	75.27	1.50	330.10	
PERIOD		0.00181	ug/m^3	R-8	608470.72	4124205.86	75.95	1.50	330.10	

PROJECT TITLE:

C:\Lakes\AERMOD View\54580005 Piercy Rd Warehouse\54580005 Piercy Rd Mitigated





COMMENTS:

SOURCES:

4

RECEPTORS:

2202

OUTPUT TYPE:

Concentration

MAX:

4.9E-02 ug/m^3

COMPANY NAME:

MODELER:

DATE:

9/25/2021

SCALE: 1:20,558

0 0.5 km

PROJECT NO.:

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