AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

ATTACHMENT B

to the
Albrae Industrial Project

1st Addendum
to The Globe Planned District
EIR and Supplemental EIR

40517 ALBRAE STREET INDUSTRIAL PROJECT AIR QUALITY AND GREENHOUSE GAS EMISSION ASSESSMENT

Fremont, California

November 9, 2020
Revised December 23, 2020

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INTRODUCTION

The purpose of this report is to address air quality impacts and greenhouse gas (GHG) emissions associated with the proposed industrial development at 40517 Albrae Street in Fremont, California. The air quality impacts from this project would be associated with the demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutants and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential project health risk impacts from the project (includes construction and operation) were addressed qualitatively since sensitive receptors are located over 1,000 feet away from the project site. The project site was evaluated for air quality impacts previously under *The Globe General Plan Amendment Final Environmental Impact Report (EIR)* (published in 2005)[1] and *The Globe Supplement to EIR* (published December 2006).[2] This analysis was conducted to identify any new or more substantial impacts that would be caused by the project as compared to the previously approved *The Globe* project. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[3]

PROJECT DESCRIPTION

The project is located south of Stevenson Boulevard between Albrae Street and Encyclopedia Circle. The 22.5-acre project would consist of the following three buildings:

- Building 1 at the southeast part of the site would consist of 15,000 square feet of office and 176,500 square feet of warehouse,
- Building 2 at the southwest part of the site would consist of 12,000 square feet of office and 146,200 square feet of warehouse, and
- Building 3 at the northwest part of the site would consist of 10,000 square feet of office and 36,800 square feet of industrial R&D/manufacturing space.

Overall, the project would provide 37,000 square feet of office, 322,700 square feet of warehouse, and 36,800 square feet of industrial R&D/manufacturing space. Access to the site would be provided through two driveways on Albrae Street, two driveways on Encyclopedia Circle, and one driveway on Main Street. The project would provide 752 automobile parking spaces.

Previously, the site was entitled as a regional retail center. The impacts of the entitled project were evaluated in *The Globe General Plan Amendment EIR* and *The Globe Supplement to EIR*. The 2005 EIR project land uses modeled for air quality impacts were 50,000 sf of Quality Restaurant and 412,251.7 sf of Regional Shopping Center on a 31.5 acre site. Note that 102,000 sf of Regional Shopping Center has already been built and was included in this project analysis. In this analysis, the impacts from proposed industrial project, combined with the built-out portion of the entitled project, are compared to the previously entitled retail land use.

The Globe General Plan Amendment Final EIR Impacts and Findings

[1] City of Fremont, 2005. *The Globe General Plan Amendment Final Environmental Impact Report*. December.
[2] City of Fremont, 2006. *The Globe Supplement to Focused Environmental Impact Report*. December.
[3] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

The following mitigation measures from The Globe General Plan Amendment Final EIR are applicable to the project.

GLOBE EIR IMPACT 3.1.1: Construction Activities Would Generate Fugitive Dust and Exhaust Emissions. The effects of construction activities would be increased dustfall and locally elevated levels of PM_{10} downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. This is considered a *potentially significant environmental impact*.

GLOBE EIR MITIGATION MEASURE 3.1.1: Dust Control Measures. The City shall require implementation of the following dust control measures by contractors during demolition of existing structures:

- Watering should be used to control dust generation during demolition of structures and break-up of pavement.
- Cover all trucks hauling demolition debris from the site.
- Use dust-proof chutes to load debris into trucks whenever feasible.

The City shall require implementation of the following dust control measures by construction contractors during all construction phases:

- Water all active construction areas at least twice daily.
- Watering or covering of stockpiles of debris, soil, sand or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (preferably with water sweepers) all paved access road, parking areas and staging areas at construction sites.
- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles
- (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

RESULTING LEVEL OF SIGNIFICANCE

The above measures include all feasible measures for construction emissions identified by the Bay Area Air Quality Management District for large sites. According to the District threshold of

significance for construction impacts, implementation of the measures would reduce construction impacts of The Globe project to a *less-than-significant* level.

GLOBE EIR IMPACT 3.1.2: New Traffic Generated by the Project Would Increase Regional Emissions. Project emissions would exceed these thresholds of significance for ozone precursors (ROG and NO_x) and PM_{10}, so the proposed The Globe project would have a **significant adverse environmental impact** on regional air quality. This is also considered a **significant cumulative environmental impact.**

GLOBE EIR MITIGATION MEASURE 3.1.2: Reduce Vehicle Trips. The following are feasible mitigation measures identified by the BAAQMD for commercial development:

- Provide transit facilities, e.g., bus bulbs/turnouts, benches, shelters, etc.
- Provide bicycle land and/or paths, connected to community-wide network.
- Provide sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network.
- Provide secure and conveniently located bicycle storage.
- Provide preferential parking for electric or alternatively-fueled vehicles.
- Implement feasible TDM measures including a ride-matching program, coordination with regional ridesharing organizations and provision of transit information.

RESULTING LEVEL OF SIGNIFICANCE

The above measures have the potential to reduce The Globe project-related regional emissions by five to ten percent. This would not be sufficient to reduce The Globe project emissions below the BAAQMD significance threshold of 80 pounds per day. This represented a *significant and unavoidable environmental impact* associated with The Globe project as approved.

AIR POLLUTANTS OF CONCERN

High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_X). These precursor pollutants react under certain meteorological conditions to form high O_3 levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High O_3 levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

TOXIC AIR CONTAMINANTS

TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

REGULATORY SETTING

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter (PM_{10} and $PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[4]

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500

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

parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD), is currently required for use by all vehicles in the U.S.

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

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.[5] In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and $PM_{2.5}$ emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

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

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San

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

Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

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

The BAAQMD California Environmental Quality Act (*CEQA) Air Quality Guidelines*[6] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions.

CITY OF FREMONT

Fremont General Plan 2030

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

Goal 7-7: Air Quality. Air quality improved over current conditions that meets or exceeds State and Regional standards.

Policy 7-7.1: Cooperation to Improve Regional Air Quality. Support and coordinate air quality planning efforts with other local, regional and State agencies to improve regional air quality.

Implementation 7-7.1.A: Monitor and Control Air Pollutants. Support BAAQMD efforts to monitor and control air pollutants from stationary and non-stationary sources.

Implementation 7-7.1.B: Permits for Projects that may Impact Air Quality. Require new stationary sources with potential air quality impacts to obtain necessary permits from the BAAQMD.

Implementation 7-7.1.C: Annual Review of Air Quality Data. Monitor available air quality data for the City of Fremont relative to State standards on an annual basis.

[6] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

Implementation 7-7.1.D: Include Air Quality in Environmental Impact Process. Review proposed projects for their potential to affect air quality conditions during the environmental impact process.

Implementation 7-7.1.E: Clean Air Plan. Review and comment on the Clean Air Plan and other documents prepared by BAAQMD.

Implementation 7-7.1.F: Impacts from Projects in Neighboring Communities. Review environmental impact reports of large projects in neighboring communities with the potential to affect Fremont's air quality and request appropriate mitigations.

Implementation 7-7.1.G: Air Emission Standards. Promote enforcement of air emission standards by BAAQMD.

Policy 7-7.2: Reduce Air Pollution Levels. Reduce City of Fremont air contaminant levels and particulate emissions below BAAQMD attainment levels, in particular, ozone and particulate matter levels.

Implementation 7-7.2.A: Construction Practices. Require construction practices that reduce dust and other particulate emissions and require watering of exposed areas at construction sites.

Implementation 7-7.2.B: Reducing Fireplace Emissions. Ensure new development complies with the City's Wood Burning Fireplace Ordinance to assist in reducing fireplace particulate emissions.

Policy 7-7.3: Land Use Planning to Minimize Health Impacts from Toxic Air Contaminants. Coordinate land use planning with air quality data and local transportation planning to reduce the potential for long-term exposure to TACs from permanent sources that affect the community.

Implementation 7-7.3.A: Limit New TAC Sources. Evaluate new sources of TAC emissions pursuant to BAAQMD guidelines and thresholds for an increased health risk of no more than 10 additional incidents of cancer per million exposures or contribute to a cumulative risk in excess of 100 additional incidents of cancer per million exposures.

Policy 7-7.4: Air Quality Impact of Industry. Reduce the air quality impacts created by truck traffic, hazardous materials and industry.

Implementation 7-7.4.A: Alternative-Fuel Vehicles. Encourage other agencies and private industry to use alternative-fuel vehicles.

Implementation 7-7.4.B: Enforcement of Air Quality Regulations. Encourage stationary air pollutant sources to reduce emissions and encourage enforcement by the relevant regulatory agencies when attainment levels are not met.

Implementation 7-7.4.C: Review and Update Hazardous Materials Policy. Enforce City policies and regularly review and update policies on the use, transport and storage of hazardous materials with potential for impacts on air quality and health.

Implementation 7-7.4.D: Review Truck and Train Routes. Review truck and train routes for the potential to affect sensitive receptors in the event of an accident involving hazardous materials.

Goal 7-8: Greenhouse Gas Emissions. Greenhouse gas emissions reduced by 25% from 2005 levels by 2020. This goal is aspirational and not meant to supersede Assembly Bill 32 (AB 32) targets as a standard for project review.

Policy 7-8.1: Climate Action Plan. Maintain a Climate Action Plan (CAP) that outlines the specific strategies the City will implement to achieve its 2020 reduction goals.

Implementation 7-8.1.A: CAP Implementation. Implement strategies in the CAP to achieve the City's greenhouse gas reduction target.

Implementation 7-8.1.B: CAP Updates. Update the CAP every five years to reflect updated GHG emissions data; review the appropriateness and adequacy of the City's GHG reduction target and determine whether revisions to the goals and strategies in the CAP are necessary.

Implementation 7-8.1.C: Consistency with CAP. Review and adjust City policies and programs to be consistent with the Climate Action Plan.

Policy 7-8.2: Development Trends. Review development trends for consistency with targets of AB 32: Global Warming Solutions Act of 2006.

Implementation 7-8.2.A: Report to City Council. Provide a development trend report to the City Council in 2015 to determine consistency with greenhouse gas reduction strategy analysis of the Draft EIR and target reductions of AB 32.

Implementation 7-8.2.B: Monitoring. Monitor actions of the State Scoping Plan and Regional Climate Change planning activities, including SB 375, related to reduction targets for the year 2035 and 2050.

Fremont Municipal Code

The City of Fremont Municipal Code establishes standard development requirements for air quality due to construction activities such as grading and demolition. The following standards are applicant to the analysis:

18.218.050 Standard development requirements: Air Quality

1. Construction Related Emissions. The following construction measures, as periodically amended by BAAQMD, are required for all proposed development projects to reduce construction-related fugitive dust and exhaust emissions:

   A. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times daily.

   B. All haul trucks transporting soil, sand, or other loose material off site shall be covered.

   C. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
   D. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

   E. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

   F. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points.

   G. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

   H. A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

SENSITIVE RECEPTORS

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children.

Per BAAQMD guidance only sensitive receptors within 1,000 feet should be evaluated for this type of project.[7] There are no sensitive receptors within 1,000 feet of the project site. The closest sensitive receptors to the project site are residences to the northeast of the project site across Interstate 880. Therefore, a quantitative health risk assessment for nearby sensitive receptors was not included in this analysis.

SIGNIFICANCE THRESHOLDS

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 CEQA Air Quality Guidelines. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the CEQA Air Quality Guidelines in 2017 to include the latest significance thresholds, which were used in this analysis and are summarized in Table 1.

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

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10.0 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect GHG emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually (for 2020)* OR 4.6 metric tons per service population per year (for 2020)*		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases.

*BAAQMD does not have a recommended post-2020 GHG threshold.

Source: Bay Area Air Quality Management District, 2017

AIR QUALITY IMPACTS AND MITIGATION MEASURES

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

The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for O_3 and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[8] The model output from CalEEMod along with construction inputs are included as *Attachment 1* and EMFAC2017 vehicle emissions modeling outputs are included in *Attachment 2*.

Land Use Inputs

The proposed project land uses are shown in Table 2.

Table 2. Summary of Project Land Use CalEEMod Inputs

Project Land Uses	Size	Units	Square Feet	Acres
General Office Building	37.00	1,000 sf	37,000	22.50
Manufacturing	36.80	1,000 sf	36,800	
Unrefrigerated Warehouse- No Rail	322.70	1,000 sf	322,700	
Parking Lot	753	Parking Space	301,200	

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment list and schedule, were based on information provided by the project applicant.

[8] See CARB's EMFAC2017 Web Database at https://www.arb.ca.gov/emfac/2017/

The project applicant provided an approximate schedule with construction starting in August 2021 and ending in July 2022. Based on this schedule, construction would last for approximately 12 months or 229 construction workdays. Within the construction information worksheet, the quantity of equipment to be used along with the average hours per day for each construction phase was also provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase.

Construction Traffic Emissions

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2017 model; however, CalEEMod has not been updated to include EMFAC2017. Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the estimate of demolition material to be exported, soil material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily rate by the number of days in that phase. The traffic information was combined with EMFAC2017 motor vehicle emissions factors.

EMFAC2017 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trucks, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling. Since CalEEMod does not directly address cement or asphalt trucks, these were treated as vendor travel distances (7.3 miles).[9] Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On road emissions in Alameda County for 2021 and 2022. Table 3 provides the traffic inputs that were combined with the EMFAC2017 emission database to compute vehicle emissions.

[9] Note that vendor construction traffic surveys used to develop CalEEMod default assumptions likely included cement truck trips.

Table 3. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker Trips[1]	Total Vendor Trips[1]	Total Haul Trips	
Vehicle mix[1]	71% LDA 7% LDT1 23% LDT2	34% MHDT 66% HHDT	100% HDDT	
Trip Length (miles)	10.8	7.3	20.0 Haul 7.3 cement/asphalt	Truck Idle Time = 5 minutes
Demolition	300	-	778	171,000 sf of existing building. CalEEMod Defaults.
Site Preparation	180	-	-	CalEEMod Defaults
Grading	1,200	-	-	CalEEMod Defaults
Trenching	600	-	-	CalEEMod Defaults
Building Construction	26,010	10,260	4,320	2,160 cement round trips. CalEEMod Defaults
Paving	450	-	646	5,170 cy of asphalt. CalEEMod Defaults.
Architectural Coating	1,740	-	-	CalEEMod Default

Notes:
[1] Based on 2021 and 2022 EMFAC2017 VMT-based fleet mix for Alameda County. Square feet = sf, Cubic yards = cy

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions and dividing those emissions by the number of active workdays during that year. A five day a week schedule was assumed. Table 4 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. None of the construction criteria pollutant emissions would exceed the BAAQMD significant thresholds.

Table 4. Project Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2021	0.14	1.44	0.07	0.06
2022	2.23	0.95	0.06	0.04
Annualized Daily Construction Emissions (pounds/day)				
2021 (94 construction workdays)	2.91	30.60	1.50	1.25
2022 (135 construction workdays)	33.04	14.11	0.82	0.63
2017 BAAQMD Thresholds	*54 lbs./day*	*54 lbs./day*	*82 lbs./day*	*54 lbs./day*
Exceed Threshold?	*No*	*No*	*No*	*No*

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The City has adopted "Standard Development Requirements" under the Fremont Municipal Code Section 18.218.050, which include the BAAQMD CEQA Air Quality Guidelines best management practices to control dust during construction projects. *The project would have to implement these practices during construction activities.* The best management practices in the City's Standard Development Requirements were also recommended in The Globe EIR as *Mitigation Measure 3.1.1 Dust Control Measure*.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from truck traffic and autos driven by future employees and customers. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. This analysis assumed that the project would be fully built out and operating in the year 2023.

Operational Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model. The traffic consultant provided daily trips for the land uses. The weekday trip generation rates were adjusted using the traffic daily rates. The Saturday and Sunday trip rates were adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate.[10] For The default trip lengths and trip types specified by CalEEMod were used.

In addition, the traffic report forecasted truck trips for the warehouse and manufacturing land uses. 13 percent of the trips from the proposed project land uses were assumed to be truck trips. Trucks have much higher emissions rates than trucks, so these were modeled separately. The traffic mix in CalEEMod was adjusted to represent only the Medium-Heavy Duty Trucks (MHDT) and Heavy-Heavy Duty Trucks (HHDT). Trip rates were predicted by dividing the number of truck trips by its corresponding land use size. For the truck traffic modeling, an average trip length of 17 miles was input to the model. Since truck traffic trip lengths are unknown, an estimate was made. This is based on a combination of the default trip length in CalEEMod for commercial-nonworker trips (i.e. 7.3 miles) and the longest trip length that a truck is expected to travel, which

[10] Fehr & Peers, 2020. *40517 Albrae Street Industrial Project – Preliminary Transportation Evaluation*. September.

would be 26 miles.

EMFAC2017 Adjustment

The vehicle emission factors and fleet mix used in CalEEMod are based on EMission FACtors from 2014 (EMFAC2014), which is an older CARB emission inventory for on road and off road mobile sources. Since the release of CalEEMod Version 2016.3.2, new emission factors have been produced by CARB. EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. It includes the latest data on California's car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.[11,12] The SAFE vehicle Rule Part One revoked California's authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant and GHG emissions would increase. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2017, which were adjusted with the CARB EMFAC off-model adjustment factors. More details about the updates in emissions calculation methodologies and data are available in the EMFAC2017 Technical Support Document.[13]

For the project land uses, the Medium-Heavy Duty Trucks (MHDT) and Heavy-Heavy Duty Trucks (HHDT) were removed from the emission factors and the fleet mix. For the truck traffic, a fleet mix of 50 percent MHDT and 50 percent HHDT was assumed and adjusted in the model's fleet mix.

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards[14]. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds CO_2 per megawatt of electricity delivered in the year 2017.[15]

[11] California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf

[12] California Air Resource Board, 2020. *EMFAC Off-Model Adjustment Factors for Carbon Dioxide (CO_20 Emissions to Accounts for the SAFE Vehicles Rule Part One and the Final SAFE Rule*. June. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery

[13] See CARB 2018: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

[14] An update to CalEEMod to include new 2019 Title 24 standards that include more energy efficient buildings has not been completed at the time of this analysis.

[15] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100% aerobic conditions to represent wastewater treatment plant conditions.

Previously Entitled Retail

The project site was previously entitled for a retail shopping center. To account for the already built out portion of the project, the DEIR Entitled Retail (2005) average daily emissions were proportional adjusted. The total average daily emissions from the DEIR were multiplied by the ratio of the built portion of 102,000 sf to the modeled portion entitled of 462,251.7 sf. The Built-Out Retail emissions were then added to the proposed project emissions to predict the total project average daily emissions.

Summary of Computed Operational Emissions

Daily summer emissions (pounds per day) were predicted using CalEEMod. Table 5 shows the Project average daily emissions (includes the industrial development, the project truck traffic, and the previously built out retail development) and the 2005 Entitled Retail average daily emissions. The operational period emissions from the project plus built out entitled retail uses are less than the average daily emissions reported for The Globe's remaining entitled retail uses.

Table 5. Operational Period Emissions – Average Daily Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Project Emissions *(pounds/day)*	14.36	7.30	16.84	4.61
Project Truck Emissions *(pounds/day)*	0.51	31.17	5.91	1.85
Built-Out Retail Emissions (*pounds/day*)[1,2]	28.44	28.71	24.58	<24.58[3]
Project Average Daily Emissions (*pounds/day*)	43.31	67.18	47.34	<31.04[3]
DEIR Entitled Retail (2005) Emissions (pounds/day)[2]	*128.9*	*130.1*	*111.4*	*N/A*
Difference (Proposed Project – Entitled Retail)	**-85.59**	**-62.92**	**-64.06**	**<31.04[3]**
2017 BAAQMD Thresholds (pounds/day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Project Exceed Threshold?	*No*	*No*	*No*	*No*

[1] Fraction of entitled project that would be built out and remain with proposed project.
[2] Based on *The Globe General Plan Amendment Final Environmental Impact Report* findings.
[3] The 2005/2006 EIRs did not predict $PM_{2.5}$ emissions because there were no thresholds for $PM_{2.5}$ at the time. Since $PM_{2.5}$ is a fraction of PM_{10}, it is assumed that $PM_{2.5}$ emissions predicted in the 2005/2006 EIR are less than PM_{10}. Therefore, those emissions are reported as "<" the PM_{10} value. The emissions for the built-out portion of the retail that would stay is based on the proportion of 2005/2006 EIR emissions.

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

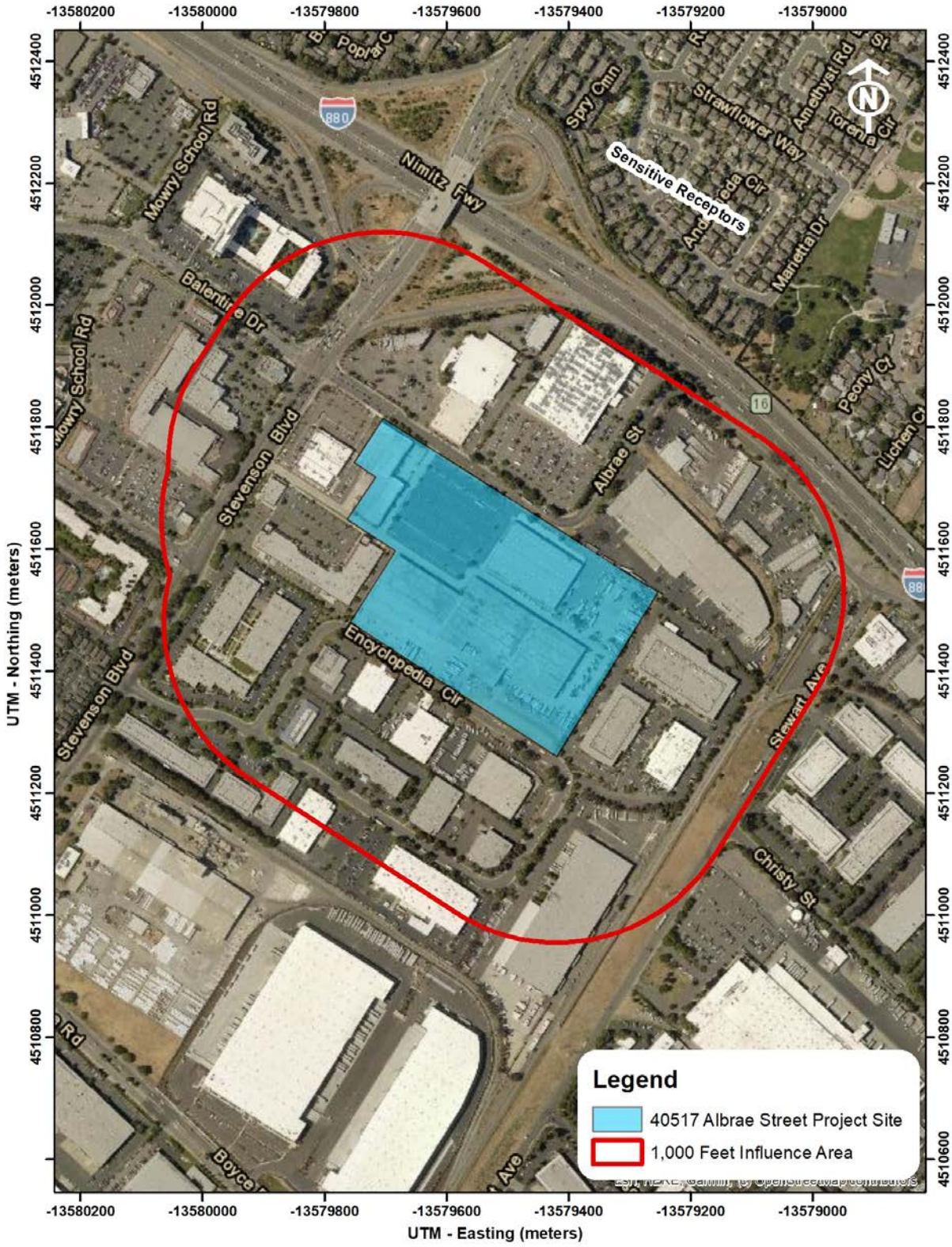
Project impacts related to increased community risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. This project would introduce new sources of TACs during construction (i.e. on-site construction and truck hauling emissions) and operation (i.e. mobile). Project construction activity would generate dust and equipment exhaust that could affect nearby sensitive receptors. During project operation, the project would generate some traffic, consisting of mostly light-duty vehicles. In addition, the project proposes onsite stationary sources in the form of diesel-powered generators. To evaluate these sources, BAAQMD recommends that sensitive receptors within 1,000 feet of a project be considered.

The closest sensitive receptors to the project are located well beyond 1,000 feet at more than 1,200 feet north of the project site. Therefore, a health risk assessment of the project construction activities was not conducted since sensitive receptors are located beyond 1,000 feet. Figure 1 shows the project affected areas and the area within 1,000 feet of the site.

Given the large distance between the project site and sensitive receptors and temporary nature of this impact, community risk caused by construction are considered to be below the BAAQMD single-source thresholds for increased cancer risk, annual $PM_{2.5}$ concentration, and hazard index value. It should be noted that the Standard Development Requirements" under the Fremont Municipal Code Section 18.218.050, would reduce the emissions of TACs and $PM_{2.5}$ during construction.

Long-term operational emissions from the project would include traffic (i.e. passenger cars and truck traffic) and natural gas combustion from equipment used to provide space and water heating. Each of these sources would have minor emissions of TACs and $PM_{2.5}$. Traffic emissions would be spread out over a large area and have a negligible effect on any singular sensitive receptor. Therefore, the project in the short-term (i.e., during construction) or long-term (i.e., operation) would not cause cancer risk, non-cancer health effects or annual $PM_{2.5}$ concentrations to exceed the community risk thresholds.

Figure 1. Project Site and Approximate 1,000-foot Area of Influence for Assessing TAC Impacts



GREENHOUSE GAS EMISSIONS

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

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

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

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

Recent Regulatory Actions for GHG Emissions

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

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

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

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

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

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

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

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*. [16] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive

[16] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons (MT) CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

Executive Order B-55-18 – Carbon Neutrality

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

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

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32

goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

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

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

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

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[17] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1,2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic

[17] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.

systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[18]

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[19] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[20] In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was computed for the year 2011.[21] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011

City of Fremont Climate Action Plan

The City of Fremont's Climate Action Plan (CAP) includes strategies to achieve greenhouse gas emission reductions characterized along a 'continuum of actions' for intervention by the City. The CAP is intended to build upon existing environmental preservation, public health, and energy-saving efforts. The Cap is consistent with the goals and policies in the General Plan and reinforces the principle of sustainability which underlies the General Plan. On November 13, 2012, the City adopted the CAP with guidelines of reaching a target reduction of 25% below baseline 2005 GHG emissions levels by 2020.[22] However, the CAP does not have a specific metric ton GHG threshold for project-level construction or operation. Therefore, the BAAQMD's CEQA Air Quality Guideline's thresholds are used.

GHG Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric ton per service population. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate.

However, The Globe 2005 EIR did not include a GHG analysis since it was not a CEQA requirement at the time. Therefore, the proposed project's GHG emissions are compared to the GHG emissions from the entitled retail instead of being compared to a threshold.

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[18] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
[19] United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018*. April. Web: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf
[20] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Web: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf
[21] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Web: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.
[22] City of Fremont, *City of Fremont Climate Action Plan*, November 13, 2012, https://www.fremont.gov/DocumentCenter/View/19837/Climate-Action-Plan

Impact-GHG 1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, the generator, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

Construction GHG Emissions

GHG emissions associated with construction were computed to be 495 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational GHG Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. CalEEMod models were run for the for the project and for the entitled retail land uses in 2023.

Previously Entitled Retail

The project site was previously entitled for a retail shopping center in 2006. The entitled regional retail center was 412,251.7 sf of "Regional Shopping Center" and 50,000 sf of "Quality Restaurant." Since GHG emissions were not modeled in the 2006 DEIR, these land uses were modeled in CalEEMod with the project-specific trip generation rates from the traffic consultant. A model year of 2023 was assumed, and a future interim year of 2030 was modeled.

Summary of Operational GHG Emissions

As shown in Table 6, annual emissions from the project are predicted to be 5,779 MT of CO2e, compared to 15,214 MT of CO_2e for the entitled retail shopping center in the year 2023. The 2030 GHG emissions for the proposed project would be 5,096 MT of CO_2e and for the entitled retail it would be 13,507 MT of CO_2e. The proposed project would have less operational GHG emissions than the entitled retail land use.

Table 6. Annual Project and Entitled Retail GHG Emissions (CO_2e) in Metric Tons

Source Category	Proposed Project in 2023	Entitled Retail in 2023	Proposed Project in 2030	Entitled Retail in 2030
Area	0	0	0	0
Energy Consumption	311	1,109	311	1,109
Mobile	2,348	13,771	2,023	12,064
Solid Waste Generation	193	241	193	241
Water Usage	103	93	103	93
Mobile – Trucks	2,824		2,466	
Metric Ton Total	5,779	15,214	5,096	13,507
Net Total (Project – Entitled)		**-9,434**		**-8,410**

Supporting Documentation

Attachment 1 includes the CalEEMod outputs for construction and operation. Also included are any modeling assumptions.

Attachment 2 includes the EMFAC2017 inputs and outputs for construction and operation.

Attachment 1: Project Construction Modeling Information

Air Quality/Noise Construction Information Data Request

Project Name: **Albrae Industrial, Fremont**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size ____ Dwelling Units 22.5 total project acres disturbed

349,700 s.f. Warehouse (non-refreigerated)

0 s.f. Warehouse (Refreigerated)

0 s.f. office/commercial

46,800 s.f. Manufacturing:

0 s.f. parking garage ____ spaces

____ s.f. parking lot 752 spaces

Construction Hours 8 am to 4 pm

Pile Driving? Y/N? _N_

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? _N___

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**8/24/2021**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**9/20/2021**					
1	Concrete/Industrial Saws	81	0.73	8	10	4	4730	**Demolition Volume**
3	Excavators	158	0.38	8	15	6	21614	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	15	6	23712	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			0	0	171,000 square feet *or*
								_?_ Hauling volume (tons)
								Any pavement demolished and hauled? **_0_ tons**
	Site Preparation	**Start Date:**	**9/20/2021**	**Total phase:**	**10**			
		End Date:	**10/4/2021**					
	Graders	187	0.41			0	0	
3	Rubber Tired Dozers	247	0.4	8	10	8	23712	
4	Tractors/Loaders/Backhoes	97	0.37	8	10	8	11485	
	Grading / Excavation	**Start Date:**	**10/4/2021**	**Total phase:**	**60**			
		End Date:	**12/27/2020**					**Soil Hauling Volume**
2	Excavators	158	0.38	8	30	4	28819	Export volume = **_0_** cubic yards?
1	Graders	187	0.41	8	30	4	18401	Import volume = **_0_** cubic yards?
1	Rubber Tired Dozers	247	0.4	8	35	4.66666667	27664	
2	Concrete/Industrial Saws	81	0.73	8	35	4.66666667	33113	
2	Tractors/Loaders/Backhoes	97	0.37	8	35	4.66666667	20098	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**12/28/2021**	**Total phase:**	**60**			
		End Date:	**3/21/2022**					
2	Tractor/Loader/Backhoe	97	0.37	8	30	4	17227	
2	Excavators	158	0.38	8	30	4	28819	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**3/22/2022**	**Total phase:**	**90**			**Cement Trucks? _2160_ Total Round-Trips**
		End Date:	**7/11/2022**					
1	Cranes	231	0.29	7	20	1.55555556	9379	Electric? (Y/N) _N__Otherwise assumed diesel
3	Forklifts	89	0.2	8	20	1.77777778	8544	Liquid Propane (LPG)? (Y/N) _N__Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	30	2.66666667	14918	Or temporary line power? (Y/N) _N__
7	Tractors/Loaders/Backhoes	97	0.37	7	60	4.66666667	105517	
1	Welders	46	0.45	8	20	1.77777778	3312	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**5/30/2022**	**Total phase:**	**30**			
		End Date:	**7/11/2022**					
3	Air Compressors	78	0.48	6	10	2	6739	
3	Aerial Lift	62	0.31	6	15	3	5189	
	Other Equipment?							
	Paving	**Start Date:**	**5/30/2022**	**Total phase:**	**30**			
		Start Date:	**7/11/2022**					
	Cement and Mortar Mixers	9	0.56			0	0	
2	Pavers	130	0.42	8	15	4	13104	**Asphalt? __5170_ cubic yards or ____ round trips?**
2	Paving Equipment	132	0.36	8	15	4	11405	
2	Rollers	80	0.38	8	15	4	7296	
	Tractors/Loaders/Backhoes	97	0.37			0	0	
	Other Equipment?							
	Additional Phases	**Start Date:**	**8/24/2021**	**Total phase:**	**300**			
		Start Date:	**7/11/2022**					
						0	0	
						0	0	
						0	0	
						0	0	
						0	0	

Equipment types listed in "Equipment Types" worksheet tab.

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

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Traffic Consultant Trip Gen					CalEEMod Default		
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
Regional Shopping Center	412.2517			***42.94***	42.7	49.97	25.24
					Rev	***50.25***	***25.38***
Quality Restaurant	50	14170	14170	***89.95***	89.95	94.36	72.16
					Rev	***94.36***	***72.16***

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Quality restaurant		89.95 trips/1000 sq. ft.	50.00	4,497.50
Regnl shop. center		42.94 trips/1000 sq. ft.	412.25	17,702.02
		Sum of Total Trips		22,199.52
		Total Vehicle Miles Traveled		73,036.27

40514 Albrae Fremont Construction Criteria Air Pollutants					
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**
Year	Tons				MT
Construction Equipment					
2021	0.1145	1.2297	0.0558	0.0514	136
2022	2.1977	0.6498	0.0338	0.0315	112
EMFAC					
2021	0.022	0.208	0.015	0.007	101
2022	0.032	0.303	0.021	0.011	147
Total Construction Emissions by Year					
2021	0.14	1.44	0.07	0.06	236
2022	2.23	0.95	0.06	0.04	259
	Total Construction Emissions				
Tons	2.37	2.39	0.13	0.10	495

Pounds/Workdays	*Average Daily Emissions*				Workdays
2021	2.91	30.60	1.50	1.25	94
2022	33.04	14.11	0.82	0.63	135

40514 Albrae Fremont Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Scenario	Pounds Per Day			
Industrial Uses	14.36	7.30	16.84	4.61
Industrial Trucks	0.51	31.17	5.91	1.85
Adjusted Entitled Retail	28.44	28.71	24.58	24.58
Proposed Project + Adjusted Entitled Retail	**43.31**	**67.18**	**47.34**	**31.04**
Entitled Retail (2005)	128.9	130.1	111.4	0
Delta	-85.59	-62.92	-64.06	31.04

Category	**CO2e**			
	Project 2023	Entitled Retail 2023	Project 2030	Entitled Retail 2030
Area	0	0	0	0
Energy	311	1,109	311	1,109
Mobile	2,348	13,771	2,023	12,064
Waste	193	241	193	241
Water	103	93	103	93
Mobile - Trucks	2,824		2,466	
TOTAL	5,779	15,213	5,096	13,506
Net GHG Emissions		-9,434		-8,410

Traffic Consultant Trip Gen						CalEEMod Default		
Land Use	Size	Daily Trips	Auto Trips	Truck Trips	Weekday Auto Trip Gen	Weekday	Sat	Sun
General Office Building	37	360	360	0	***9.73***	11.03	2.46	1.05
Reduction						*Rev*	***2.17***	***0.93***
Reduction								
Warehouse	322.7	2500	2175	325	***6.74***	1.68	1.68	1.68
Reduction						*Rev*	***6.74***	***6.74***
Manufacturing	36.8	280	243.6	36.4	***6.62***	3.82	1.49	0.62
Reduction						*Rev*	***2.58***	***1.07***
			2778.6					

Table 2: Project Automobile Trip Generation

Land Use	Size[1]	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Office[2]	37.0 KSF	360	53	9	61	7	37	44
Warehouse[3]	322.7 KSF	2,500	113	113	226	140	67	207
Manufacturing[4]	36.8 KSF	280	18	5	23	8	17	25
Total		*3,140*	*184*	*127*	*311*	*155*	*121*	*276*
Truck Traffic Adjustment[5]		350	16	15	31	19	10	29
Net New Automobile Trips		**3,490**	**200**	**142**	**342**	**174**	**131**	**305**

Notes:

1. KSF = 1,000 square feet.
2. ITE Trip Generation (Tenth Edition) land use category 710 (General Office Building in General Urban/Suburban Setting):
   Daily: T = 9.74 * X
   AM Peak Hour: T = 0.94 * X + 26.49 (86% in, 14% out)
   PM Peak Hour: Ln (T) = 0.95 * Ln (X) + 0.36 (16% in, 84% out)
3. ITE Trip Generation (Tenth Edition) land use category 156 (High-Cube Parcel Hub Warehouse in General Urban/ Suburban Setting):
   Daily: T = 7.75 * X
   AM Peak Hour: T = 0.70 * X (50% in, 50% out)
   PM Peak Hour: T = 0.64 * X (68% in, 32% out)
4. ITE Trip Generation (Tenth Edition) land use category 140 (Manufacturing in General Urban/Suburban Setting):
   Daily: T = 3.16 * X + 160.04
   AM Peak Hour: T = 0.62 * X (77% in, 23% out)
   PM Peak Hour: Ln (T) = 0.67 * X (31% in, 69% out)
5. Based on ITE *Trip Generation Tenth Edition Supplement*, land use category 156 (High-Cube Parcel Hub Warehouse in General Urban/ Suburban Setting), which shows trucks comprising between 9% and 13% of trip generation. This analysis assumes 13% of the trips to be truck trips. This trip generation estimate assumes a PCE of 2.0 for the truck trips.

Source: Fehr & Peers, 2020.

Summary of Construction Traffic Emissions (EMFAC2017)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Tons						*Metric Tons*
Criteria Pollutants											
2021	0.022	0.208	0.198	0.001	0.058	0.015	0.072	0.009	0.007	0.016	100.887
2022	0.032	0.303	0.288	0.001	0.084	0.021	0.105	0.013	0.011	0.023	146.675

Regional Emissions

IMPACT 3.1.2: New Traffic Generated by the Project Would Increase Regional Emissions. Project emissions would exceed these thresholds of significance for ozone precursors (ROG and NO_x) and PM_{10}, so the proposed Project would have a **significant adverse environmental impact** on regional air quality. This is also considered a **significant cumulative environmental impact**.

Vehicle trips generated by the project would result in air pollutant emissions affecting the entire San Francisco Bay Air Basin. Regional emissions associated with project vehicle use have been calculated using the URBEMIS2002 emission model. The methodology used in estimating vehicular emissions is described in **Appendix B**.

The incremental daily emission increase associated with project land uses is identified in **Table 3-4** for reactive organic gases and oxides of nitrogen (two precursors of ozone) and PM_{10}. The Bay Area Air Quality Management District has established a threshold of significance for ozone precursors and PM_{10} of 80 pounds per day. Modeled Project emissions shown in **Table 3-4** would exceed these thresholds of significance for ozone precursors (ROG and NO_x) and PM_{10}, so the proposed Project would have a significant effect on regional air quality.

TABLE 3-4: PROJECT REGIONAL EMISSIONS IN POUNDS PER DAY

	Reactive Organic Gases	Nitrogen Oxides	PM_{10}
Project Emissions	128.9	130.1	111.4
BAAQMD Significance Threshold	80.0	80.0	80.0

According to BAAQMD significance criteria, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Since the proposed Project would exceed the BAAQMD thresholds of significance for ozone precursors and PM_{10}, the Project would have a significant cumulative impact on regional air quality.

RECOMMENDED MITIGATION MEASURES

MITIGATION MEASURE 3.1.2: Reduce Vehicle Trips. The following are feasible mitigation measures identified by the BAAQMD for commercial development:

- Provide transit facilities, e.g., bus bulbs/turnouts, benches, shelters, etc.

- Provide bicycle land and/or paths, connected to community-wide network.
- Provide sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network.
- Provide secure and conveniently located bicycle storage.
- Provide preferential parking for electric or alternatively-fueled vehicles.
- Implement feasible TDM measures including a ride-matching program, coordination with regional ridesharing organizations and provision of transit information.

RESULTING LEVEL OF SIGNIFICANCE

The above measures have the potential to reduce Project-related regional emissions by five to ten percent. This would not be sufficient to reduce Project emissions below the BAAQMD significance threshold of 80 pounds per day, so Project-related regional air quality impacts would remain singularly and cumulatively significant after mitigation. This represents a ***significant and unavoidable environmental impact*** associated with the Project as proposed.

The Globe General Plan Land Uses - AQ/GHG Model

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	412.25	1000sqft	31.50	412,251.70	0
Quality Restaurant	50.00	1000sqft	0.00	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Land Uses from 2005 Appendix from URBEMIS

Construction Phase - Operational Model, No Construction

Vehicle Trips - Trips from the URBEMIS

Energy Use -

Water And Wastewater - 100% aerobic WTP

Vehicle Emission Factors - 2023 EMFAC2017 for Alameda County

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/25/2020	10/28/2020
tblFleetMix	HHD	0.05	0.04
tblFleetMix	HHD	0.05	0.04
tblFleetMix	LDA	0.56	0.56
tblFleetMix	LDA	0.56	0.56
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.18
tblFleetMix	LDT2	0.19	0.18
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.1800e-003	5.1889e-003
tblFleetMix	LHD2	5.1800e-003	5.1889e-003
tblFleetMix	MCY	5.4910e-003	5.4598e-003
tblFleetMix	MCY	5.4910e-003	5.4598e-003
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	7.0400e-004	6.7314e-004
tblFleetMix	MH	7.0400e-004	6.7314e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.2090e-003	1.3295e-003
tblFleetMix	OBUS	2.2090e-003	1.3295e-003
tblFleetMix	SBUS	3.3400e-004	3.3174e-004
tblFleetMix	SBUS	3.3400e-004	3.3174e-004
tblFleetMix	UBUS	2.4560e-003	1.5390e-003
tblFleetMix	UBUS	2.4560e-003	1.5390e-003
tblLandUse	LandUseSquareFeet	412,252.00	412,251.70
tblLandUse	LotAcreage	9.46	31.50

tblLandUse	LotAcreage	1.15	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblVehicleEF	HHD	0.62	0.02
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	1.68	6.67
tblVehicleEF	HHD	0.78	0.34
tblVehicleEF	HHD	2.05	4.2510e-003
tblVehicleEF	HHD	4,767.28	1,103.40
tblVehicleEF	HHD	1,547.06	1,394.59
tblVehicleEF	HHD	6.46	0.05
tblVehicleEF	HHD	14.52	5.51
tblVehicleEF	HHD	2.04	2.58
tblVehicleEF	HHD	20.07	2.28
tblVehicleEF	HHD	6.5450e-003	2.4080e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1300e-003	0.03
tblVehicleEF	HHD	5.2000e-005	0.00
tblVehicleEF	HHD	6.2620e-003	2.3040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8970e-003	8.9200e-003
tblVehicleEF	HHD	5.8640e-003	0.02
tblVehicleEF	HHD	4.8000e-005	0.00
tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	2.8330e-003	7.7000e-005
tblVehicleEF	HHD	0.44	0.45
tblVehicleEF	HHD	3.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	2.1500e-004	3.9700e-004

tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.04	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	9.8000e-005	0.00
tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	2.8330e-003	7.7000e-005
tblVehicleEF	HHD	0.51	0.52
tblVehicleEF	HHD	3.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.14	0.06
tblVehicleEF	HHD	2.1500e-004	3.9700e-004
tblVehicleEF	HHD	0.06	1.0000e-006
tblVehicleEF	LDA	3.8970e-003	2.1170e-003
tblVehicleEF	LDA	5.6840e-003	0.05
tblVehicleEF	LDA	0.53	0.57
tblVehicleEF	LDA	1.25	2.24
tblVehicleEF	LDA	244.94	250.63
tblVehicleEF	LDA	56.21	53.04
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.07	0.19
tblVehicleEF	LDA	1.7490e-003	1.4470e-003
tblVehicleEF	LDA	2.2460e-003	1.7590e-003
tblVehicleEF	LDA	1.6120e-003	1.3340e-003
tblVehicleEF	LDA	2.0650e-003	1.6170e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.11	0.10
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	9.8450e-003	8.2240e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.08	0.23
tblVehicleEF	LDA	2.4520e-003	9.1000e-005

tblVehicleEF	LDA	5.8300e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.11	0.10
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.08	0.25
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tblVehicleEF	LDT1	2.67	2.45
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tblVehicleEF	LDT1	69.06	64.04
tblVehicleEF	LDT1	0.10	0.08
tblVehicleEF	LDT1	0.15	0.25
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tblVehicleEF	LDT1	3.0800e-003	2.3280e-003
tblVehicleEF	LDT1	2.1120e-003	1.6790e-003
tblVehicleEF	LDT1	2.8320e-003	2.1410e-003
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.24	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.15	0.65
tblVehicleEF	LDT1	0.18	0.34
tblVehicleEF	LDT1	3.0180e-003	2.4710e-003
tblVehicleEF	LDT1	7.3700e-004	0.00
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.24	0.18
tblVehicleEF	LDT1	0.07	0.07

tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.15	0.65
tblVehicleEF	LDT1	0.19	0.37
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tblVehicleEF	LDT2	1.52	2.87
tblVehicleEF	LDT2	339.26	321.40
tblVehicleEF	LDT2	77.68	69.31
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.11	0.28
tblVehicleEF	LDT2	1.7210e-003	1.4410e-003
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tblVehicleEF	LDT2	1.5830e-003	1.3260e-003
tblVehicleEF	LDT2	2.1190e-003	1.6200e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.32
tblVehicleEF	LDT2	3.3970e-003	0.01
tblVehicleEF	LDT2	8.0200e-004	7.0000e-005
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.10	0.35
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tblVehicleEF	LHD1	0.02	8.9070e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	1.08	0.81
tblVehicleEF	LHD1	2.63	1.12
tblVehicleEF	LHD1	9.01	8.94
tblVehicleEF	LHD1	694.94	806.45
tblVehicleEF	LHD1	32.75	12.21
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.26	0.76
tblVehicleEF	LHD1	1.04	0.34
tblVehicleEF	LHD1	8.7000e-004	7.9200e-004
tblVehicleEF	LHD1	0.01	9.6770e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	9.3800e-004	2.6000e-004
tblVehicleEF	LHD1	8.3200e-004	7.5800e-004
tblVehicleEF	LHD1	2.5100e-003	2.4190e-003
tblVehicleEF	LHD1	0.02	9.8820e-003
tblVehicleEF	LHD1	8.6300e-004	2.3900e-004
tblVehicleEF	LHD1	2.3470e-003	1.8480e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3470e-003	1.0560e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.30	0.55
tblVehicleEF	LHD1	0.27	0.08
tblVehicleEF	LHD1	9.0000e-005	8.7000e-005
tblVehicleEF	LHD1	6.8250e-003	7.8810e-003
tblVehicleEF	LHD1	3.7700e-004	1.2100e-004
tblVehicleEF	LHD1	2.3470e-003	1.8480e-003

tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3470e-003	1.0560e-003
tblVehicleEF	LHD1	0.15	0.12
tblVehicleEF	LHD1	0.30	0.55
tblVehicleEF	LHD1	0.29	0.09
tblVehicleEF	LHD2	3.6270e-003	3.6920e-003
tblVehicleEF	LHD2	8.0300e-003	7.1740e-003
tblVehicleEF	LHD2	7.5680e-003	9.9610e-003
tblVehicleEF	LHD2	0.13	0.15
tblVehicleEF	LHD2	0.58	0.63
tblVehicleEF	LHD2	1.26	0.72
tblVehicleEF	LHD2	13.84	13.61
tblVehicleEF	LHD2	714.57	797.43
tblVehicleEF	LHD2	25.84	9.13
tblVehicleEF	LHD2	0.10	0.09
tblVehicleEF	LHD2	0.78	0.86
tblVehicleEF	LHD2	0.51	0.22
tblVehicleEF	LHD2	1.2000e-003	1.2930e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.1700e-004	1.4400e-004
tblVehicleEF	LHD2	1.1480e-003	1.2380e-003
tblVehicleEF	LHD2	2.6730e-003	2.6420e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8400e-004	1.3200e-004
tblVehicleEF	LHD2	8.1400e-004	1.0880e-003
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.9300e-004	6.3200e-004

tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.07	0.32
tblVehicleEF	LHD2	0.10	0.05
tblVehicleEF	LHD2	1.3500e-004	1.3000e-004
tblVehicleEF	LHD2	6.9560e-003	7.7200e-003
tblVehicleEF	LHD2	2.8100e-004	9.0000e-005
tblVehicleEF	LHD2	8.1400e-004	1.0880e-003
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.9300e-004	6.3200e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.07	0.32
tblVehicleEF	LHD2	0.11	0.05
tblVehicleEF	MCY	0.46	0.34
tblVehicleEF	MCY	0.17	0.26
tblVehicleEF	MCY	20.03	20.15
tblVehicleEF	MCY	10.24	9.10
tblVehicleEF	MCY	174.71	215.41
tblVehicleEF	MCY	45.85	61.83
tblVehicleEF	MCY	1.17	1.17
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1220e-003	2.0690e-003
tblVehicleEF	MCY	3.9700e-003	3.1980e-003
tblVehicleEF	MCY	1.9850e-003	1.9350e-003
tblVehicleEF	MCY	3.7430e-003	3.0120e-003
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.33	2.34
tblVehicleEF	MCY	0.60	2.18

tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	2.1430e-003	2.1320e-003
tblVehicleEF	MCY	6.9300e-004	6.1200e-004
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.88	2.89
tblVehicleEF	MCY	0.60	2.18
tblVehicleEF	MCY	2.46	2.17
tblVehicleEF	MDV	9.7550e-003	3.8520e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.05	0.83
tblVehicleEF	MDV	2.91	3.26
tblVehicleEF	MDV	457.07	386.78
tblVehicleEF	MDV	102.80	83.08
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.25	0.34
tblVehicleEF	MDV	1.8870e-003	1.5680e-003
tblVehicleEF	MDV	2.5190e-003	1.9540e-003
tblVehicleEF	MDV	1.7400e-003	1.4460e-003
tblVehicleEF	MDV	2.3160e-003	1.7970e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	4.5760e-003	3.7760e-003
tblVehicleEF	MDV	1.0790e-003	8.1200e-004
tblVehicleEF	MDV	0.06	0.07

tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.24	0.45
tblVehicleEF	MH	0.03	0.01
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.15	1.09
tblVehicleEF	MH	5.90	2.17
tblVehicleEF	MH	1,214.25	1,537.97
tblVehicleEF	MH	59.49	19.02
tblVehicleEF	MH	1.30	1.27
tblVehicleEF	MH	0.86	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.1590e-003	2.7900e-004
tblVehicleEF	MH	3.2120e-003	3.2610e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0660e-003	2.5600e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.29	0.24
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.34	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	6.9800e-004	1.8800e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.29	0.24

tblVehicleEF	MH	0.13	0.09
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.37	0.11
tblVehicleEF	MHD	0.02	2.7380e-003
tblVehicleEF	MHD	3.7500e-003	1.5030e-003
tblVehicleEF	MHD	0.05	7.1960e-003
tblVehicleEF	MHD	0.29	0.36
tblVehicleEF	MHD	0.32	0.22
tblVehicleEF	MHD	4.66	0.85
tblVehicleEF	MHD	166.31	73.92
tblVehicleEF	MHD	1,184.93	1,059.43
tblVehicleEF	MHD	46.12	7.10
tblVehicleEF	MHD	0.46	0.43
tblVehicleEF	MHD	1.12	1.43
tblVehicleEF	MHD	12.97	1.81
tblVehicleEF	MHD	1.2900e-004	3.5500e-004
tblVehicleEF	MHD	3.0820e-003	6.8020e-003
tblVehicleEF	MHD	6.6500e-004	8.1000e-005
tblVehicleEF	MHD	1.2300e-004	3.4000e-004
tblVehicleEF	MHD	2.9450e-003	6.5030e-003
tblVehicleEF	MHD	6.1100e-004	7.5000e-005
tblVehicleEF	MHD	6.8000e-004	2.7800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.9700e-004	1.6300e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.28	0.04
tblVehicleEF	MHD	1.5960e-003	7.0100e-004
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	5.4300e-004	7.0000e-005
tblVehicleEF	MHD	6.8000e-004	2.7800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	3.9700e-004	1.6300e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.31	0.04
tblVehicleEF	OBUS	0.01	8.4730e-003
tblVehicleEF	OBUS	8.2390e-003	7.2810e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.56	0.81
tblVehicleEF	OBUS	5.79	2.54
tblVehicleEF	OBUS	108.13	82.95
tblVehicleEF	OBUS	1,293.96	1,469.46
tblVehicleEF	OBUS	66.33	19.88
tblVehicleEF	OBUS	0.23	0.32
tblVehicleEF	OBUS	0.91	1.23
tblVehicleEF	OBUS	3.06	0.80
tblVehicleEF	OBUS	2.1000e-005	1.0600e-004
tblVehicleEF	OBUS	2.6580e-003	6.8520e-003
tblVehicleEF	OBUS	8.5400e-004	1.9300e-004
tblVehicleEF	OBUS	2.0000e-005	1.0200e-004
tblVehicleEF	OBUS	2.5240e-003	6.5370e-003
tblVehicleEF	OBUS	7.8500e-004	1.7800e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004

tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.35	0.12
tblVehicleEF	OBUS	1.0430e-003	7.9000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6500e-004	1.9700e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.39	0.13
tblVehicleEF	SBUS	0.84	0.07
tblVehicleEF	SBUS	0.02	4.4000e-003
tblVehicleEF	SBUS	0.07	5.8300e-003
tblVehicleEF	SBUS	10.65	2.77
tblVehicleEF	SBUS	1.01	0.35
tblVehicleEF	SBUS	11.22	0.85
tblVehicleEF	SBUS	974.60	342.95
tblVehicleEF	SBUS	934.35	997.56
tblVehicleEF	SBUS	72.90	4.89
tblVehicleEF	SBUS	6.31	2.88
tblVehicleEF	SBUS	2.72	3.57
tblVehicleEF	SBUS	9.19	1.11
tblVehicleEF	SBUS	5.9520e-003	2.9750e-003
tblVehicleEF	SBUS	9.7910e-003	0.01
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.2910e-003	6.9000e-005
tblVehicleEF	SBUS	5.6940e-003	2.8460e-003

tblVehicleEF	SBUS	2.4480e-003	2.6500e-003
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.1870e-003	6.3000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.28	0.31
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.55	0.03
tblVehicleEF	SBUS	9.6730e-003	3.2700e-003
tblVehicleEF	SBUS	9.0870e-003	9.5500e-003
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.85	0.44
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004
tblVehicleEF	SBUS	0.12	0.07
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	UBUS	0.27	0.10
tblVehicleEF	UBUS	0.04	1.2390e-003
tblVehicleEF	UBUS	6.51	0.16
tblVehicleEF	UBUS	7.42	0.09
tblVehicleEF	UBUS	2,210.19	1,585.08
tblVehicleEF	UBUS	75.27	1.01
tblVehicleEF	UBUS	15.33	1.24
tblVehicleEF	UBUS	16.64	0.01
tblVehicleEF	UBUS	0.66	0.07
tblVehicleEF	UBUS	0.01	0.03

tblVehicleEF	UBUS	0.32	6.1100e-003
tblVehicleEF	UBUS	8.7700e-004	8.0000e-006
tblVehicleEF	UBUS	0.28	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9200e-003
tblVehicleEF	UBUS	0.30	5.8400e-003
tblVehicleEF	UBUS	8.0700e-004	7.0000e-006
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005
tblVehicleEF	UBUS	0.79	1.5220e-003
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.56	5.3860e-003
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	8.8600e-004	1.0000e-005
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005
tblVehicleEF	UBUS	1.12	0.10
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.61	5.8970e-003

2.0 Emissions Summary

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	2.0468	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.80E-03
Energy	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	1,098.7999	1,098.7999	0.0864	0.0258	1,108.64
Mobile	7.9278	13.9990	51.3288	0.1379	13.0453	0.1296	13.1748	3.4971	0.1216	3.6187	0.0000	13,754.8867	13,754.8867	0.6481	0.0000	13,771.09
Waste						0.0000	0.0000		0.0000	0.0000	97.1292	0.0000	97.1292	5.7402	0.0000	240.6334
Water						0.0000	0.0000		0.0000	0.0000	14.5027	30.1242	44.6268	1.4937	0.0360	92.7075
Total	**10.0301**	**14.5035**	**51.7569**	**0.1410**	**13.0453**	**0.1679**	**13.2132**	**3.4971**	**0.1600**	**3.6571**	**111.6318**	**14,883.8190**	**14,995.4508**	**7.9684**	**0.0618**	**15,213.08**

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	2.0468	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Energy	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	1,098.7999	1,098.7999	0.0864	0.0258	1,108.6402
Mobile	7.9278	13.9990	51.3288	0.1379	13.0453	0.1296	13.1748	3.4971	0.1216	3.6187	0.0000	13,754.8867	13,754.8867	0.6481	0.0000	13,771.0895
Waste						0.0000	0.0000		0.0000	0.0000	97.1292	0.0000	97.1292	5.7402	0.0000	240.6334
Water						0.0000	0.0000		0.0000	0.0000	14.5027	30.1242	44.6268	1.4937	0.0360	92.7075
Total	**10.0301**	**14.5035**	**51.7569**	**0.1410**	**13.0453**	**0.1679**	**13.2132**	**3.4971**	**0.1600**	**3.6571**	**111.6318**	**14,883.8190**	**14,995.4508**	**7.9684**	**0.0618**	**15,213.0793**

	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**

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	7.9278	13.9990	51.3288	0.1379	13.0453	0.1296	13.1748	3.4971	0.1216	3.6187	0.0000	13,754.8867	13,754.8867	0.6481	0.0000	13,771.0895
Unmitigated	7.9278	13.9990	51.3288	0.1379	13.0453	0.1296	13.1748	3.4971	0.1216	3.6187	0.0000	13,754.8867	13,754.8867	0.6481	0.0000	13,771.0895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	17,603.15	20,600.22	10405.23	29,811,489	29,811,489
Quality Restaurant	4,497.50	4,718.00	3608.00	5,221,422	5,221,422
Total	22,100.65	25,318.22	14,013.23	35,032,911	35,032,911

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-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.559764	0.054310	0.175999	0.106171	0.021090	0.005189	0.023513	0.044631	0.001329	0.001539	0.005460	0.000332	0.000673
Regional Shopping Center	0.559764	0.054310	0.175999	0.106171	0.021090	0.005189	0.023513	0.044631	0.001329	0.001539	0.005460	0.000332	0.000673

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	549.5605	549.5605	0.0759	0.0157	556.1369
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	549.5605	549.5605	0.0759	0.0157	556.1369
NaturalGas Mitigated	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	549.2394	549.2394	0.0105	0.0101	552.5033
NaturalGas Unmitigated	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	549.2394	549.2394	0.0105	0.0101	552.5033

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					
Quality Restaurant	8.396e+006	0.0453	0.4116	0.3457	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	448.0425	448.0425	8.5900e-003	8.2100e-003	450.7050
Regional Shopping Center	1.89636e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1969	101.1969	1.9400e-003	1.8600e-003	101.7982
Total		**0.0555**	**0.5045**	**0.4238**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**	**0.0000**	**549.2394**	**549.2394**	**0.0105**	**0.0101**	**552.5033**

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					
Quality Restaurant	8.396e+006	0.0453	0.4116	0.3457	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	448.0425	448.0425	8.5900e-003	8.2100e-003	450.7050
Regional Shopping Center	1.89636e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1969	101.1969	1.9400e-003	1.8600e-003	101.7982
Total		**0.0555**	**0.5045**	**0.4238**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**	**0.0000**	**549.2394**	**549.2394**	**0.0105**	**0.0101**	**552.5033**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	1.449e+006	138.0236	0.0191	3.9400e-003	139.6753
Regional Shopping Center	4.3204e+006	411.5369	0.0568	0.0118	416.4616
Total		**549.5605**	**0.0759**	**0.0157**	**556.1369**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	1.449e+006	138.0236	0.0191	3.9400e-003	139.6753

Regional Shopping Center	4.3204e+006	411.5369	0.0568	0.0118	416.4616
Total		**549.5605**	**0.0759**	**0.0157**	**556.1369**

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	2.0468	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Unmitigated	2.0468	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-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	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003

Total	**2.0468**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-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	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.8000e-003
Total	**2.0468**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.6268	1.4937	0.0360	92.7075
Unmitigated	44.6268	1.4937	0.0360	92.7075

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	15.1767 / 0.968725	12.9602	0.4957	0.0119	28.9007
Regional Shopping Center	30.5364 / 18.7159	31.6666	0.9981	0.0241	63.8068
Total		**44.6268**	**1.4937**	**0.0360**	**92.7075**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	15.1767 / 0.968725	12.9602	0.4957	0.0119	28.9007
Regional Shopping Center	30.5364 / 18.7159	31.6666	0.9981	0.0241	63.8068
Total		**44.6268**	**1.4937**	**0.0360**	**92.7075**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.1292	5.7402	0.0000	240.6334
Unmitigated	97.1292	5.7402	0.0000	240.6334

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	45.63	9.2625	0.5474	0.0000	22.9474
Regional Shopping Center	432.86	87.8667	5.1928	0.0000	217.6860
Total		**97.1292**	**5.7402**	**0.0000**	**240.6334**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	45.63	9.2625	0.5474	0.0000	22.9474

Regional Shopping Center	432.86	87.8667	5.1928	0.0000	217.6860
Total		**97.1292**	**5.7402**	**0.0000**	**240.6334**

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

The Globe General Plan Land Uses - AQ/GHG Model 2030 - Alameda County, Annual

The Globe General Plan Land Uses - AQ/GHG Model 2030

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	50.00	1000sqft	0.00	50,000.00	0
Regional Shopping Center	412.25	1000sqft	31.50	412,251.70	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Land Uses from 2005 Appendix from URBEMIS

Construction Phase - Operational Model, No Construction

Vehicle Trips - Trips from the URBEMIS

Vehicle Emission Factors - 2030 EMFAC2017 for Alameda County

Energy Use -

Water And Wastewater - 100% aerobic WTP

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	20.00	0.00
tblFleetMix	HHD	0.05	0.05
tblFleetMix	HHD	0.05	0.05
tblFleetMix	LDA	0.57	0.56
tblFleetMix	LDA	0.57	0.56
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.17
tblFleetMix	LDT2	0.19	0.17
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0680e-003	5.3919e-003
tblFleetMix	LHD2	5.0680e-003	5.3919e-003
tblFleetMix	MCY	5.3050e-003	5.0824e-003
tblFleetMix	MCY	5.3050e-003	5.0824e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	6.4400e-004	6.7402e-004
tblFleetMix	MH	6.4400e-004	6.7402e-004
tblFleetMix	MHD	0.03	0.03
tblFleetMix	MHD	0.03	0.03
tblFleetMix	OBUS	2.2800e-003	1.2650e-003
tblFleetMix	OBUS	2.2800e-003	1.2650e-003
tblFleetMix	SBUS	3.8900e-004	3.9373e-004
tblFleetMix	SBUS	3.8900e-004	3.9373e-004
tblFleetMix	UBUS	1.7700e-003	1.7063e-003
tblFleetMix	UBUS	1.7700e-003	1.7063e-003
tblLandUse	LandUseSquareFeet	412,250.00	412,251.70
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	9.46	31.50

tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblVehicleEF	HHD	0.57	0.02
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.52	6.48
tblVehicleEF	HHD	0.77	0.35
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tblVehicleEF	HHD	4,379.42	949.28
tblVehicleEF	HHD	1,493.58	1,197.92
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tblVehicleEF	HHD	12.87	5.27
tblVehicleEF	HHD	1.70	2.46
tblVehicleEF	HHD	20.10	2.28
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tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.6620e-003	0.02
tblVehicleEF	HHD	5.9000e-005	0.00
tblVehicleEF	HHD	3.0050e-003	1.9610e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9090e-003	8.9370e-003
tblVehicleEF	HHD	5.4170e-003	0.02
tblVehicleEF	HHD	5.4000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	1.0000e-006
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tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	1.9900e-004	2.2800e-004
tblVehicleEF	HHD	0.03	1.0000e-006

tblVehicleEF	HHD	0.04	8.8790e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	8.9000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	1.0000e-006
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tblVehicleEF	HHD	0.04	1.0000e-006
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tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.02	0.03
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tblVehicleEF	LDA	0.02	0.03
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tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	9.3940e-003	6.6250e-003
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tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.01	9.6660e-003

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tblVehicleEF	LHD1	0.01	0.02
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tblVehicleEF	LHD1	0.26	0.48
tblVehicleEF	LHD1	0.18	0.05
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tblVehicleEF	LHD2	9.9200e-004	1.3650e-003
tblVehicleEF	LHD2	2.7010e-003	2.6900e-003
tblVehicleEF	LHD2	9.1250e-003	0.01
tblVehicleEF	LHD2	3.4200e-004	1.0200e-004
tblVehicleEF	LHD2	5.2000e-004	6.9000e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4700e-004	4.5200e-004
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tblVehicleEF	LHD2	0.04	0.18
tblVehicleEF	LHD2	0.05	0.03
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tblVehicleEF	LHD2	2.4200e-004	7.1000e-005
tblVehicleEF	LHD2	5.2000e-004	6.9000e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.4700e-004	4.5200e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.18
tblVehicleEF	LHD2	0.05	0.03
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tblVehicleEF	MCY	0.16	0.25
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tblVehicleEF	MCY	10.42	9.29
tblVehicleEF	MCY	176.75	214.70
tblVehicleEF	MCY	43.32	59.83
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.2480e-003	2.2270e-003
tblVehicleEF	MCY	3.3450e-003	2.8710e-003
tblVehicleEF	MCY	2.0970e-003	2.0780e-003
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tblVehicleEF	MCY	0.77	1.56
tblVehicleEF	MCY	0.63	0.64
tblVehicleEF	MCY	0.46	0.93
tblVehicleEF	MCY	2.23	2.24
tblVehicleEF	MCY	0.42	1.55
tblVehicleEF	MCY	2.16	1.92

tblVehicleEF	MCY	2.1360e-003	2.1250e-003
tblVehicleEF	MCY	6.6700e-004	5.9200e-004
tblVehicleEF	MCY	0.77	1.56
tblVehicleEF	MCY	0.63	0.64
tblVehicleEF	MCY	0.46	0.93
tblVehicleEF	MCY	2.80	2.80
tblVehicleEF	MCY	0.42	1.55
tblVehicleEF	MCY	2.35	2.09
tblVehicleEF	MDV	5.2260e-003	1.7410e-003
tblVehicleEF	MDV	7.9730e-003	0.05
tblVehicleEF	MDV	0.66	0.53
tblVehicleEF	MDV	1.63	2.39
tblVehicleEF	MDV	367.64	324.27
tblVehicleEF	MDV	83.23	68.54
tblVehicleEF	MDV	0.07	0.03
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	1.4360e-003	1.0530e-003
tblVehicleEF	MDV	2.1120e-003	1.3640e-003
tblVehicleEF	MDV	1.3220e-003	9.7100e-004
tblVehicleEF	MDV	1.9420e-003	1.2540e-003
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.14	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	6.6960e-003
tblVehicleEF	MDV	0.08	0.36
tblVehicleEF	MDV	0.11	0.21
tblVehicleEF	MDV	3.6770e-003	2.9940e-003
tblVehicleEF	MDV	8.6000e-004	6.3400e-004
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.14	0.10

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.7020e-003
tblVehicleEF	MDV	0.08	0.36
tblVehicleEF	MDV	0.12	0.23
tblVehicleEF	MH	8.7050e-003	4.9010e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.48	0.30
tblVehicleEF	MH	3.83	1.66
tblVehicleEF	MH	1,185.53	1,350.88
tblVehicleEF	MH	57.19	15.77
tblVehicleEF	MH	0.84	1.00
tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.8600e-004	2.1600e-004
tblVehicleEF	MH	3.2180e-003	3.2890e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1400e-004	1.9800e-004
tblVehicleEF	MH	0.42	0.30
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.13
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.51
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3800e-004	1.5600e-004
tblVehicleEF	MH	0.42	0.30
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.13
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.01	0.51
tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	2.4700e-003
tblVehicleEF	MHD	2.4560e-003	8.1200e-004
tblVehicleEF	MHD	0.03	5.3120e-003
tblVehicleEF	MHD	0.26	0.35
tblVehicleEF	MHD	0.24	0.14
tblVehicleEF	MHD	2.64	0.55
tblVehicleEF	MHD	175.25	66.88
tblVehicleEF	MHD	1,161.70	945.85
tblVehicleEF	MHD	39.54	5.37
tblVehicleEF	MHD	0.47	0.36
tblVehicleEF	MHD	1.07	1.46
tblVehicleEF	MHD	13.71	1.88
tblVehicleEF	MHD	6.3000e-005	1.5100e-004
tblVehicleEF	MHD	3.0350e-003	7.0730e-003
tblVehicleEF	MHD	5.2900e-004	6.6000e-005
tblVehicleEF	MHD	6.0000e-005	1.4500e-004
tblVehicleEF	MHD	2.9000e-003	6.7630e-003
tblVehicleEF	MHD	4.8600e-004	6.0000e-005
tblVehicleEF	MHD	4.3600e-004	1.7800e-004
tblVehicleEF	MHD	0.02	9.6900e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	2.8800e-004	1.1700e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.0850e-003	0.05
tblVehicleEF	MHD	0.16	0.03
tblVehicleEF	MHD	1.6800e-003	6.3400e-004
tblVehicleEF	MHD	0.01	8.9900e-003
tblVehicleEF	MHD	4.4200e-004	5.3000e-005

tblVehicleEF	MHD	4.3600e-004	1.7800e-004
tblVehicleEF	MHD	0.02	9.6900e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	2.8800e-004	1.1700e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	9.0850e-003	0.05
tblVehicleEF	MHD	0.18	0.03
tblVehicleEF	OBUS	0.01	8.0170e-003
tblVehicleEF	OBUS	4.4730e-003	3.1490e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.66
tblVehicleEF	OBUS	0.33	0.36
tblVehicleEF	OBUS	4.35	1.99
tblVehicleEF	OBUS	123.81	94.12
tblVehicleEF	OBUS	1,272.55	1,255.93
tblVehicleEF	OBUS	64.00	16.27
tblVehicleEF	OBUS	0.28	0.41
tblVehicleEF	OBUS	0.86	1.27
tblVehicleEF	OBUS	3.09	0.95
tblVehicleEF	OBUS	2.5000e-005	1.3800e-004
tblVehicleEF	OBUS	2.8370e-003	7.6450e-003
tblVehicleEF	OBUS	9.3800e-004	1.8200e-004
tblVehicleEF	OBUS	2.4000e-005	1.3200e-004
tblVehicleEF	OBUS	2.6920e-003	7.2960e-003
tblVehicleEF	OBUS	8.6200e-004	1.6700e-004
tblVehicleEF	OBUS	1.1090e-003	1.3280e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.4600e-004	6.5800e-004
tblVehicleEF	OBUS	0.04	0.02

tblVehicleEF	OBUS	0.03	0.27
tblVehicleEF	OBUS	0.27	0.10
tblVehicleEF	OBUS	1.1930e-003	8.9400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.1600e-004	1.6100e-004
tblVehicleEF	OBUS	1.1090e-003	1.3280e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	5.4600e-004	6.5800e-004
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.03	0.27
tblVehicleEF	OBUS	0.30	0.11
tblVehicleEF	SBUS	0.82	0.11
tblVehicleEF	SBUS	6.8690e-003	3.2140e-003
tblVehicleEF	SBUS	0.05	9.1510e-003
tblVehicleEF	SBUS	11.66	4.28
tblVehicleEF	SBUS	0.40	0.27
tblVehicleEF	SBUS	9.35	1.29
tblVehicleEF	SBUS	875.82	341.38
tblVehicleEF	SBUS	873.53	889.24
tblVehicleEF	SBUS	81.41	7.46
tblVehicleEF	SBUS	2.93	2.07
tblVehicleEF	SBUS	1.13	1.94
tblVehicleEF	SBUS	7.38	1.37
tblVehicleEF	SBUS	1.4430e-003	1.4560e-003
tblVehicleEF	SBUS	9.5020e-003	0.01
tblVehicleEF	SBUS	5.9650e-003	0.01
tblVehicleEF	SBUS	1.5710e-003	1.2200e-004
tblVehicleEF	SBUS	1.3810e-003	1.3930e-003
tblVehicleEF	SBUS	2.3760e-003	2.5180e-003

tblVehicleEF	SBUS	5.6740e-003	0.01
tblVehicleEF	SBUS	1.4450e-003	1.1200e-004
tblVehicleEF	SBUS	3.7460e-003	8.0100e-004
tblVehicleEF	SBUS	0.04	7.7910e-003
tblVehicleEF	SBUS	1.39	0.49
tblVehicleEF	SBUS	1.9100e-003	4.0000e-004
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.48	0.05
tblVehicleEF	SBUS	8.7720e-003	3.2700e-003
tblVehicleEF	SBUS	8.5150e-003	8.5640e-003
tblVehicleEF	SBUS	9.7500e-004	7.4000e-005
tblVehicleEF	SBUS	3.7460e-003	8.0100e-004
tblVehicleEF	SBUS	0.04	7.7910e-003
tblVehicleEF	SBUS	2.02	0.71
tblVehicleEF	SBUS	1.9100e-003	4.0000e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.53	0.06
tblVehicleEF	UBUS	0.25	1.80
tblVehicleEF	UBUS	0.05	8.9400e-004
tblVehicleEF	UBUS	3.65	13.55
tblVehicleEF	UBUS	8.48	0.07
tblVehicleEF	UBUS	1,982.40	1,613.54
tblVehicleEF	UBUS	113.86	0.73
tblVehicleEF	UBUS	6.49	0.68
tblVehicleEF	UBUS	14.09	7.2140e-003
tblVehicleEF	UBUS	0.57	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.13	4.9890e-003

tblVehicleEF	UBUS	1.2930e-003	9.0000e-006
tblVehicleEF	UBUS	0.24	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9020e-003
tblVehicleEF	UBUS	0.13	4.7730e-003
tblVehicleEF	UBUS	1.1890e-003	8.0000e-006
tblVehicleEF	UBUS	2.7480e-003	3.5000e-005
tblVehicleEF	UBUS	0.05	4.8100e-004
tblVehicleEF	UBUS	1.5870e-003	2.2000e-005
tblVehicleEF	UBUS	0.34	0.03
tblVehicleEF	UBUS	0.01	2.8430e-003
tblVehicleEF	UBUS	0.70	3.8200e-003
tblVehicleEF	UBUS	0.02	9.9860e-003
tblVehicleEF	UBUS	1.2930e-003	7.0000e-006
tblVehicleEF	UBUS	2.7480e-003	3.5000e-005
tblVehicleEF	UBUS	0.05	4.8100e-004
tblVehicleEF	UBUS	1.5870e-003	2.2000e-005
tblVehicleEF	UBUS	0.62	1.83
tblVehicleEF	UBUS	0.01	2.8430e-003
tblVehicleEF	UBUS	0.77	4.1820e-003

2.0 Emissions Summary

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	2.0468	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.79E-03
Energy	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	1,098.7999	1,098.7999	0.0864	0.0258	1,108.64
Mobile	5.5345	12.4310	40.0324	0.1213	13.0614	0.1079	13.1693	3.5032	0.1015	3.6048	0.0000	12,050.2723	12,050.2723	0.5311	0.0000	12,063.55
Waste						0.0000	0.0000		0.0000	0.0000	97.1292	0.0000	97.1292	5.7402	0.0000	240.6334
Water						0.0000	0.0000		0.0000	0.0000	14.5027	30.1242	44.6268	1.4937	0.0360	92.7075
Total	**7.6367**	**12.9356**	**40.4605**	**0.1243**	**13.0614**	**0.1463**	**13.2076**	**3.5032**	**0.1399**	**3.6431**	**111.6318**	**13,179.2046**	**13,290.8364**	**7.8514**	**0.0618**	**13,505.54**

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	2.0468	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.7900e-003
Energy	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	1,098.7999	1,098.7999	0.0864	0.0258	1,108.6402
Mobile	5.5345	12.4310	40.0324	0.1213	13.0614	0.1079	13.1693	3.5032	0.1015	3.6048	0.0000	12,050.2723	12,050.2723	0.5311	0.0000	12,063.5485
Waste						0.0000	0.0000		0.0000	0.0000	97.1292	0.0000	97.1292	5.7402	0.0000	240.6334
Water						0.0000	0.0000		0.0000	0.0000	14.5027	30.1242	44.6268	1.4937	0.0360	92.7075
Total	**7.6367**	**12.9356**	**40.4605**	**0.1243**	**13.0614**	**0.1463**	**13.2076**	**3.5032**	**0.1399**	**3.6431**	**111.6318**	**13,179.2046**	**13,290.8364**	**7.8514**	**0.0618**	**13,505.5383**

	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**

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	5.5345	12.4310	40.0324	0.1213	13.0614	0.1079	13.1693	3.5032	0.1015	3.6048	0.0000	12,050.2723	12,050.2723	0.5311	0.0000	12,063.5485
Unmitigated	5.5345	12.4310	40.0324	0.1213	13.0614	0.1079	13.1693	3.5032	0.1015	3.6048	0.0000	12,050.2723	12,050.2723	0.5311	0.0000	12,063.5485

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	4,497.50	4,718.00	3608.00	5,221,422	5,221,422
Regional Shopping Center	17,603.08	20,600.13	10405.19	29,811,366	29,811,366
Total	22,100.58	25,318.13	14,013.19	35,032,788	35,032,788

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-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.560977	0.054361	0.170105	0.106021	0.020569	0.005392	0.025302	0.048152	0.001265	0.001706	0.005082	0.000394	0.000674
Regional Shopping Center	0.560977	0.054361	0.170105	0.106021	0.020569	0.005392	0.025302	0.048152	0.001265	0.001706	0.005082	0.000394	0.000674

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	549.5605	549.5605	0.0759	0.0157	556.1369
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	549.5605	549.5605	0.0759	0.0157	556.1369
NaturalGas Mitigated	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	549.2394	549.2394	0.0105	0.0101	552.5033
NaturalGas Unmitigated	0.0555	0.5045	0.4238	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	549.2394	549.2394	0.0105	0.0101	552.5033

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					
Quality Restaurant	8.396e+006	0.0453	0.4116	0.3457	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	448.0425	448.0425	8.5900e-003	8.2100e-003	450.7050
Regional Shopping Center	1.89636e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1969	101.1969	1.9400e-003	1.8600e-003	101.7982
Total		**0.0555**	**0.5045**	**0.4238**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**	**0.0000**	**549.2394**	**549.2394**	**0.0105**	**0.0101**	**552.5033**

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					
Quality Restaurant	8.396e+006	0.0453	0.4116	0.3457	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	448.0425	448.0425	8.5900e-003	8.2100e-003	450.7050
Regional Shopping Center	1.89636e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1969	101.1969	1.9400e-003	1.8600e-003	101.7982
Total		**0.0555**	**0.5045**	**0.4238**	**3.0300e-003**		**0.0383**	**0.0383**		**0.0383**	**0.0383**	**0.0000**	**549.2394**	**549.2394**	**0.0105**	**0.0101**	**552.5033**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	1.449e+006	138.0236	0.0191	3.9400e-003	139.6753
Regional Shopping Center	4.3204e+006	411.5369	0.0568	0.0118	416.4616
Total		**549.5605**	**0.0759**	**0.0157**	**556.1369**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	1.449e+006	138.0236	0.0191	3.9400e-003	139.6753

Regional Shopping Center	4.3204e+006	411.5369	0.0568	0.0118	416.4616
Total		**549.5605**	**0.0759**	**0.0157**	**556.1369**

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	2.0468	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.7900e-003
Unmitigated	2.0468	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.7900e-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	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.7900e-003

Total	**2.0468**	**4.0000e-005**	**4.2300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.7900e-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	0.2410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.9000e-004	4.0000e-005	4.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	8.2600e-003	8.2600e-003	2.0000e-005	0.0000	8.7900e-003
Total	**2.0468**	**4.0000e-005**	**4.2300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**8.2600e-003**	**8.2600e-003**	**2.0000e-005**	**0.0000**	**8.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.6268	1.4937	0.0360	92.7075
Unmitigated	44.6268	1.4937	0.0360	92.7075

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	15.1767 / 0.968725	12.9602	0.4957	0.0119	28.9007
Regional Shopping Center	30.5364 / 18.7159	31.6666	0.9981	0.0241	63.8068
Total		**44.6268**	**1.4937**	**0.0360**	**92.7075**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	15.1767 / 0.968725	12.9602	0.4957	0.0119	28.9007
Regional Shopping Center	30.5364 / 18.7159	31.6666	0.9981	0.0241	63.8068
Total		**44.6268**	**1.4937**	**0.0360**	**92.7075**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.1292	5.7402	0.0000	240.6334
Unmitigated	97.1292	5.7402	0.0000	240.6334

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	45.63	9.2625	0.5474	0.0000	22.9474
Regional Shopping Center	432.86	87.8667	5.1928	0.0000	217.6860
Total		**97.1292**	**5.7402**	**0.0000**	**240.6334**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	45.63	9.2625	0.5474	0.0000	22.9474

Regional Shopping Center	432.86	87.8667	5.1928	0.0000	217.6860
Total		**97.1292**	**5.7402**	**0.0000**	**240.6334**

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

Albrae Industrial Project- Fremont - Alameda County, Annual

Albrae Industrial Project- Fremont

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	37.00	1000sqft	22.50	37,000.00	0
Manufacturing	36.80	1000sqft	0.00	36,800.00	0
Unrefrigerated Warehouse-No Rail	322.70	1000sqft	0.00	322,700.00	0
Parking Lot	753.00	Space	0.00	301,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Acreage assigned to largest use. Based on preliminary site plan 08052020

Construction Phase - Project Applicant Construction Schedule

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - Project Specific daily trips. Does not include the truck traffic adjustment

Vehicle Emission Factors - 2023 EMFAC2017 Alameda County no MHD no HHD

Energy Use -

Water And Wastewater - 100% aerobic assumed

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	370.00	90.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	30.00
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tblFleetMix	HHD	0.05	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19

tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
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tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
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tblFleetMix	MH	7.0400e-004	7.2200e-004
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tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
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tblFleetMix	OBUS	2.2090e-003	1.4270e-003
tblFleetMix	OBUS	2.2090e-003	1.4270e-003
tblFleetMix	OBUS	2.2090e-003	1.4270e-003

tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblLandUse	LotAcreage	0.85	22.50
tblLandUse	LotAcreage	0.84	0.00
tblLandUse	LotAcreage	7.41	0.00
tblLandUse	LotAcreage	6.78	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	7.00	4.70
tblOffRoadEquipment	UsageHours	8.00	4.70

tblOffRoadEquipment	UsageHours	8.00	1.80
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tblTripsAndVMT	WorkerTripNumber	15.00	0.00
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tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3470e-003	1.0560e-003
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tblVehicleEF	LHD1	0.29	0.09
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tblVehicleEF	LHD2	0.51	0.22
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tblVehicleEF	LHD2	0.01	0.01

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tblVehicleEF	LHD2	0.11	0.05
tblVehicleEF	MCY	0.46	0.34
tblVehicleEF	MCY	0.17	0.26
tblVehicleEF	MCY	20.03	20.15
tblVehicleEF	MCY	10.24	9.10
tblVehicleEF	MCY	174.71	215.41
tblVehicleEF	MCY	45.85	61.83
tblVehicleEF	MCY	1.17	1.17
tblVehicleEF	MCY	0.32	0.27

tblVehicleEF	MCY	2.1220e-003	2.0690e-003
tblVehicleEF	MCY	3.9700e-003	3.1980e-003
tblVehicleEF	MCY	1.9850e-003	1.9350e-003
tblVehicleEF	MCY	3.7430e-003	3.0120e-003
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.33	2.34
tblVehicleEF	MCY	0.60	2.18
tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	2.1430e-003	2.1320e-003
tblVehicleEF	MCY	6.9300e-004	6.1200e-004
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.88	2.89
tblVehicleEF	MCY	0.60	2.18
tblVehicleEF	MCY	2.46	2.17
tblVehicleEF	MDV	9.7550e-003	3.8520e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.05	0.83
tblVehicleEF	MDV	2.91	3.26
tblVehicleEF	MDV	457.07	386.78
tblVehicleEF	MDV	102.80	83.08
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.25	0.34
tblVehicleEF	MDV	1.8870e-003	1.5680e-003
tblVehicleEF	MDV	2.5190e-003	1.9540e-003
tblVehicleEF	MDV	1.7400e-003	1.4460e-003
tblVehicleEF	MDV	2.3160e-003	1.7970e-003

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	4.5760e-003	3.7760e-003
tblVehicleEF	MDV	1.0790e-003	8.1200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.24	0.45
tblVehicleEF	MH	0.03	0.01
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.15	1.09
tblVehicleEF	MH	5.90	2.17
tblVehicleEF	MH	1,214.25	1,537.97
tblVehicleEF	MH	59.49	19.02
tblVehicleEF	MH	1.30	1.27
tblVehicleEF	MH	0.86	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.1590e-003	2.7900e-004
tblVehicleEF	MH	3.2120e-003	3.2610e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0660e-003	2.5600e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06

tblVehicleEF	MH	0.29	0.24
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.34	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	6.9800e-004	1.8800e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.29	0.24
tblVehicleEF	MH	0.13	0.09
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.37	0.11
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	3.7500e-003	0.00
tblVehicleEF	MHD	0.05	0.00
tblVehicleEF	MHD	0.29	0.00
tblVehicleEF	MHD	0.32	0.00
tblVehicleEF	MHD	4.66	0.00
tblVehicleEF	MHD	166.31	0.00
tblVehicleEF	MHD	1,184.93	0.00
tblVehicleEF	MHD	46.12	0.00
tblVehicleEF	MHD	0.46	0.00
tblVehicleEF	MHD	1.12	0.00
tblVehicleEF	MHD	12.97	0.00
tblVehicleEF	MHD	1.2900e-004	0.00
tblVehicleEF	MHD	0.13	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	3.0820e-003	0.00
tblVehicleEF	MHD	6.6500e-004	0.00
tblVehicleEF	MHD	1.2300e-004	0.00

tblVehicleEF	MHD	0.06	0.00
tblVehicleEF	MHD	3.0000e-003	0.00
tblVehicleEF	MHD	2.9450e-003	0.00
tblVehicleEF	MHD	6.1100e-004	0.00
tblVehicleEF	MHD	6.8000e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	3.9700e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.28	0.00
tblVehicleEF	MHD	1.5960e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	5.4300e-004	0.00
tblVehicleEF	MHD	6.8000e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.03	0.00
tblVehicleEF	MHD	3.9700e-004	0.00
tblVehicleEF	MHD	0.05	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.31	0.00
tblVehicleEF	OBUS	0.01	8.4730e-003
tblVehicleEF	OBUS	8.2390e-003	7.2810e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.56	0.81
tblVehicleEF	OBUS	5.79	2.54
tblVehicleEF	OBUS	108.13	82.95
tblVehicleEF	OBUS	1,293.96	1,469.46
tblVehicleEF	OBUS	66.33	19.88

tblVehicleEF	OBUS	0.23	0.32
tblVehicleEF	OBUS	0.91	1.23
tblVehicleEF	OBUS	3.06	0.80
tblVehicleEF	OBUS	2.1000e-005	1.0600e-004
tblVehicleEF	OBUS	2.6580e-003	6.8520e-003
tblVehicleEF	OBUS	8.5400e-004	1.9300e-004
tblVehicleEF	OBUS	2.0000e-005	1.0200e-004
tblVehicleEF	OBUS	2.5240e-003	6.5370e-003
tblVehicleEF	OBUS	7.8500e-004	1.7800e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.35	0.12
tblVehicleEF	OBUS	1.0430e-003	7.9000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6500e-004	1.9700e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.39	0.13
tblVehicleEF	SBUS	0.84	0.07
tblVehicleEF	SBUS	0.02	4.4000e-003
tblVehicleEF	SBUS	0.07	5.8300e-003
tblVehicleEF	SBUS	10.65	2.77

tblVehicleEF	SBUS	1.01	0.35
tblVehicleEF	SBUS	11.22	0.85
tblVehicleEF	SBUS	974.60	342.95
tblVehicleEF	SBUS	934.35	997.56
tblVehicleEF	SBUS	72.90	4.89
tblVehicleEF	SBUS	6.31	2.88
tblVehicleEF	SBUS	2.72	3.57
tblVehicleEF	SBUS	9.19	1.11
tblVehicleEF	SBUS	5.9520e-003	2.9750e-003
tblVehicleEF	SBUS	9.7910e-003	0.01
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.2910e-003	6.9000e-005
tblVehicleEF	SBUS	5.6940e-003	2.8460e-003
tblVehicleEF	SBUS	2.4480e-003	2.6500e-003
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.1870e-003	6.3000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.28	0.31
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.55	0.03
tblVehicleEF	SBUS	9.6730e-003	3.2700e-003
tblVehicleEF	SBUS	9.0870e-003	9.5500e-003
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.85	0.44
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004

tblVehicleEF	SBUS	0.12	0.07
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	UBUS	0.27	0.10
tblVehicleEF	UBUS	0.04	1.2390e-003
tblVehicleEF	UBUS	6.51	0.16
tblVehicleEF	UBUS	7.42	0.09
tblVehicleEF	UBUS	2,210.19	1,585.08
tblVehicleEF	UBUS	75.27	1.01
tblVehicleEF	UBUS	15.33	1.24
tblVehicleEF	UBUS	16.64	0.01
tblVehicleEF	UBUS	0.66	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.32	6.1100e-003
tblVehicleEF	UBUS	8.7700e-004	8.0000e-006
tblVehicleEF	UBUS	0.28	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9230e-003
tblVehicleEF	UBUS	0.30	5.8400e-003
tblVehicleEF	UBUS	8.0700e-004	7.0000e-006
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005
tblVehicleEF	UBUS	0.79	1.5220e-003
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.56	5.3860e-003
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	8.8600e-004	1.0000e-005
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005

tblVehicleEF	UBUS	1.12	0.10
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.61	5.8970e-003
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	ST_TR	1.49	2.58
tblVehicleTrips	ST_TR	1.68	6.74
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	SU_TR	0.62	1.07
tblVehicleTrips	SU_TR	1.68	6.74
tblVehicleTrips	WD_TR	11.03	9.73
tblVehicleTrips	WD_TR	3.82	6.62
tblVehicleTrips	WD_TR	1.68	6.74
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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					
2021	0.1145	1.2297	0.7918	1.5300e-003	0.3260	0.0558	0.3818	0.1256	0.0514	0.1771	0.0000	134.4648	134.4648	0.0428	0.0000	135.5342
2022	2.1977	0.6498	0.8481	1.2800e-003	0.0000	0.0338	0.0338	0.0000	0.0315	0.0315	0.0000	111.3982	111.3982	0.0323	0.0000	112.2053
Maximum	**2.1977**	**1.2297**	**0.8481**	**1.5300e-003**	**0.3260**	**0.0558**	**0.3818**	**0.1256**	**0.0514**	**0.1771**	**0.0000**	**134.4648**	**134.4648**	**0.0428**	**0.0000**	**135.5342**

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					
2021	0.1145	1.2297	0.7918	1.5300e-003	0.3260	0.0558	0.3818	0.1256	0.0514	0.1771	0.0000	134.4647	134.4647	0.0428	0.0000	135.5341
2022	2.1977	0.6498	0.8481	1.2800e-003	0.0000	0.0338	0.0338	0.0000	0.0315	0.0315	0.0000	111.3981	111.3981	0.0323	0.0000	112.2051
Maximum	**2.1977**	**1.2297**	**0.8481**	**1.5300e-003**	**0.3260**	**0.0558**	**0.3818**	**0.1256**	**0.0514**	**0.1771**	**0.0000**	**134.4647**	**134.4647**	**0.0428**	**0.0000**	**135.5341**

	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)
1	8-24-2021	11-23-2021	0.9648	0.9648
2	11-24-2021	2-23-2022	0.3983	0.3983
3	2-24-2022	5-23-2022	0.2776	0.2776
4	5-24-2022	8-23-2022	2.3909	2.3909
		Highest	2.3909	2.3909

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	1.7820	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Energy	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	307.7328	307.7328	0.0293	7.6600e-003	310.7484
Mobile	1.1114	0.9333	9.0834	7.7900e-003	2.7803	0.0169	2.7972	0.7413	0.0157	0.7569	0.0000	2,346.5388	2,346.5388	0.0944	0.0000	2,348.8991
Waste						0.0000	0.0000		0.0000	0.0000	77.8227	0.0000	77.8227	4.5992	0.0000	192.8024
Water						0.0000	0.0000		0.0000	0.0000	31.7397	47.5825	79.3222	0.1158	0.0704	103.1917
Total	**2.9046**	**1.0351**	**9.1794**	**8.4000e-003**	**2.7803**	**0.0247**	**2.8050**	**0.7413**	**0.0234**	**0.7647**	**109.5624**	**2,701.8746**	**2,811.4370**	**4.8388**	**0.0780**	**2,955.6635**

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	1.7820	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Energy	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	307.7328	307.7328	0.0293	7.6600e-003	310.7484
Mobile	1.1114	0.9333	9.0834	7.7900e-003	2.7803	0.0169	2.7972	0.7413	0.0157	0.7569	0.0000	2,346.5388	2,346.5388	0.0944	0.0000	2,348.8991
Waste						0.0000	0.0000		0.0000	0.0000	77.8227	0.0000	77.8227	4.5992	0.0000	192.8024
Water						0.0000	0.0000		0.0000	0.0000	31.7397	47.5825	79.3222	0.1158	0.0704	103.1917
Total	**2.9046**	**1.0351**	**9.1794**	**8.4000e-003**	**2.7803**	**0.0247**	**2.8050**	**0.7413**	**0.0234**	**0.7647**	**109.5624**	**2,701.8746**	**2,811.4370**	**4.8388**	**0.0780**	**2,955.6635**

	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	Demolition	Demolition	8/24/2021	9/20/2021	5	20	
2	Site Preparation	Site Preparation	9/20/2021	10/1/2021	5	10	
3	Grading	Grading	10/4/2021	12/24/2021	5	60	
4	Trenching/Foundation	Trenching	12/28/2021	3/21/2022	5	60	
5	Building Construction	Building Construction	3/22/2022	7/25/2022	5	90	
6	Paving	Paving	5/30/2022	7/8/2022	5	30	
7	Architectural Coating	Architectural Coating	5/30/2022	7/8/2022	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 85.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 594,750; Non-Residential Outdoor: 198,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	6.00	158	0.38
Demolition	Rubber Tired Dozers	2	6.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41

Grading	Rubber Tired Dozers	1	4.70	247	0.40
Grading	Scrapers	2	4.70	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.70	97	0.37
Trenching/Foundation	Excavators	2	4.00	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Building Construction	Cranes	1	1.60	231	0.29
Building Construction	Forklifts	3	1.80	89	0.20
Building Construction	Generator Sets	1	2.70	84	0.74
Building Construction	Tractors/Loaders/Backhoes	7	4.70	97	0.37
Building Construction	Welders	1	1.80	46	0.45
Paving	Pavers	2	4.00	130	0.42
Paving	Paving Equipment	2	4.00	132	0.36
Paving	Rollers	2	4.00	80	0.38
Architectural Coating	Aerial Lifts	3	3.00	63	0.31
Architectural Coating	Air Compressors	3	2.00	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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					0.0842	0.0000	0.0842	0.0127	0.0000	0.0127	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2282	0.1526	2.8000e-004		0.0112	0.0112		0.0104	0.0104	0.0000	24.1565	24.1565	7.1000e-003	0.0000	24.3339
Total	**0.0228**	**0.2282**	**0.1526**	**2.8000e-004**	**0.0842**	**0.0112**	**0.0954**	**0.0127**	**0.0104**	**0.0231**	**0.0000**	**24.1565**	**24.1565**	**7.1000e-003**	**0.0000**	**24.3339**

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
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					
Fugitive Dust					0.0842	0.0000	0.0842	0.0127	0.0000	0.0127	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2282	0.1526	2.8000e-004		0.0112	0.0112		0.0104	0.0104	0.0000	24.1564	24.1564	7.1000e-003	0.0000	24.3339
Total	**0.0228**	**0.2282**	**0.1526**	**2.8000e-004**	**0.0842**	**0.0112**	**0.0954**	**0.0127**	**0.0104**	**0.0231**	**0.0000**	**24.1564**	**24.1564**	**7.1000e-003**	**0.0000**	**24.3339**

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**

3.3 Site Preparation - 2021

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530

Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

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
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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

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**

3.4 Grading - 2021

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					0.1515	0.0000	0.1515	0.0632	0.0000	0.0632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0715	0.7909	0.5224	1.0500e-003		0.0340	0.0340		0.0312	0.0312	0.0000	92.1371	92.1371	0.0298	0.0000	92.8820
Total	**0.0715**	**0.7909**	**0.5224**	**1.0500e-003**	**0.1515**	**0.0340**	**0.1854**	**0.0632**	**0.0312**	**0.0945**	**0.0000**	**92.1371**	**92.1371**	**0.0298**	**0.0000**	**92.8820**

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
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					
Fugitive Dust					0.1515	0.0000	0.1515	0.0632	0.0000	0.0632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0715	0.7909	0.5224	1.0500e-003		0.0340	0.0340		0.0312	0.0312	0.0000	92.1369	92.1369	0.0298	0.0000	92.8819
Total	**0.0715**	**0.7909**	**0.5224**	**1.0500e-003**	**0.1515**	**0.0340**	**0.1854**	**0.0632**	**0.0312**	**0.0945**	**0.0000**	**92.1369**	**92.1369**	**0.0298**	**0.0000**	**92.8819**

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**

3.5 Trenching/Foundation - 2021

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	8.3000e-004	8.1000e-003	0.0111	2.0000e-005		4.3000e-004	4.3000e-004		4.0000e-004	4.0000e-004	0.0000	1.4535	1.4535	4.7000e-004	0.0000	1.4652
Total	**8.3000e-004**	**8.1000e-003**	**0.0111**	**2.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**1.4535**	**1.4535**	**4.7000e-004**	**0.0000**	**1.4652**

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
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					
Off-Road	8.3000e-004	8.1000e-003	0.0111	2.0000e-005		4.3000e-004	4.3000e-004		4.0000e-004	4.0000e-004	0.0000	1.4535	1.4535	4.7000e-004	0.0000	1.4652
Total	**8.3000e-004**	**8.1000e-003**	**0.0111**	**2.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**1.4535**	**1.4535**	**4.7000e-004**	**0.0000**	**1.4652**

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**

3.5 Trenching/Foundation - 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	0.0103	0.0967	0.1538	2.3000e-004		4.9300e-003	4.9300e-003		4.5300e-003	4.5300e-003	0.0000	20.3528	20.3528	6.5800e-003	0.0000	20.5174

Total	**0.0103**	**0.0967**	**0.1538**	**2.3000e-004**		**4.9300e-003**	**4.9300e-003**		**4.5300e-003**	**4.5300e-003**	**0.0000**	**20.3528**	**20.3528**	**6.5800e-003**	**0.0000**	**20.5174**

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
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					
Off-Road	0.0103	0.0967	0.1538	2.3000e-004		4.9300e-003	4.9300e-003		4.5300e-003	4.5300e-003	0.0000	20.3528	20.3528	6.5800e-003	0.0000	20.5173
Total	**0.0103**	**0.0967**	**0.1538**	**2.3000e-004**		**4.9300e-003**	**4.9300e-003**		**4.5300e-003**	**4.5300e-003**	**0.0000**	**20.3528**	**20.3528**	**6.5800e-003**	**0.0000**	**20.5173**

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**

3.6 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	0.0451	0.4391	0.5392	8.0000e-004		0.0232	0.0232		0.0216	0.0216	0.0000	69.7054	69.7054	0.0198	0.0000	70.2000
Total	**0.0451**	**0.4391**	**0.5392**	**8.0000e-004**		**0.0232**	**0.0232**		**0.0216**	**0.0216**	**0.0000**	**69.7054**	**69.7054**	**0.0198**	**0.0000**	**70.2000**

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
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					
Off-Road	0.0451	0.4391	0.5392	8.0000e-004		0.0232	0.0232		0.0216	0.0216	0.0000	69.7053	69.7053	0.0198	0.0000	70.2000
Total	**0.0451**	**0.4391**	**0.5392**	**8.0000e-004**		**0.0232**	**0.0232**		**0.0216**	**0.0216**	**0.0000**	**69.7053**	**69.7053**	**0.0198**	**0.0000**	**70.2000**

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**

3.7 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	8.2700e-003	0.0834	0.1094	1.7000e-004		4.2600e-003	4.2600e-003		3.9200e-003	3.9200e-003	0.0000	15.0207	15.0207	4.8600e-003	0.0000	15.1421
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2700e-003**	**0.0834**	**0.1094**	**1.7000e-004**		**4.2600e-003**	**4.2600e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**15.0207**	**15.0207**	**4.8600e-003**	**0.0000**	**15.1421**

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
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					
Off-Road	8.2700e-003	0.0834	0.1094	1.7000e-004		4.2600e-003	4.2600e-003		3.9200e-003	3.9200e-003	0.0000	15.0207	15.0207	4.8600e-003	0.0000	15.1421
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2700e-003**	**0.0834**	**0.1094**	**1.7000e-004**		**4.2600e-003**	**4.2600e-003**		**3.9200e-003**	**3.9200e-003**	**0.0000**	**15.0207**	**15.0207**	**4.8600e-003**	**0.0000**	**15.1421**

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**

3.8 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	2.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.6800e-003	0.0306	0.0457	7.0000e-005		1.4000e-003	1.4000e-003		1.3900e-003	1.3900e-003	0.0000	6.3194	6.3194	1.0500e-003	0.0000	6.3458
Total	**2.1340**	**0.0306**	**0.0457**	**7.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**6.3194**	**6.3194**	**1.0500e-003**	**0.0000**	**6.3458**

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
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	2.1303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0306	0.0457	7.0000e-005		1.4000e-003	1.4000e-003		1.3900e-003	1.3900e-003	0.0000	6.3194	6.3194	1.0500e-003	0.0000	6.3457
Total	**2.1340**	**0.0306**	**0.0457**	**7.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**6.3194**	**6.3194**	**1.0500e-003**	**0.0000**	**6.3457**

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	1.1114	0.9333	9.0834	7.7900e-003	2.7803	0.0169	2.7972	0.7413	0.0157	0.7569	0.0000	2,346.5388	2,346.5388	0.0944	0.0000	2,348.8991
Unmitigated	1.1114	0.9333	9.0834	7.7900e-003	2.7803	0.0169	2.7972	0.7413	0.0157	0.7569	0.0000	2,346.5388	2,346.5388	0.0944	0.0000	2,348.8991

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

General Office Building	360.01	80.29	34.41	653,683	653,683
Manufacturing	243.62	94.94	39.38	564,050	564,050
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	2,175.00	2,175.00	2175.00	6,349,931	6,349,931
Total	2,778.62	2,350.23	2,248.78	7,567,663	7,567,663

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-	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
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722
Manufacturing	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722
Parking Lot	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722
Unrefrigerated Warehouse-No Rail	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722

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	197.0262	197.0262	0.0272	5.6300e-003	199.3839
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	197.0262	197.0262	0.0272	5.6300e-003	199.3839
NaturalGas Mitigated	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	110.7066	110.7066	2.1200e-003	2.0300e-003	111.3645
NaturalGas Unmitigated	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	110.7066	110.7066	2.1200e-003	2.0300e-003	111.3645

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	715210	3.8600e-003	0.0351	0.0295	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.1663	38.1663	7.3000e-004	7.0000e-004	38.3931
Manufacturing	910800	4.9100e-003	0.0447	0.0375	2.7000e-004		3.3900e-003	3.3900e-003		3.3900e-003	3.3900e-003	0.0000	48.6038	48.6038	9.3000e-004	8.9000e-004	48.8926
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	448553	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9365	23.9365	4.6000e-004	4.4000e-004	24.0787
Total		**0.0112**	**0.1017**	**0.0854**	**6.1000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.7066**	**110.7066**	**2.1200e-003**	**2.0300e-003**	**111.3645**

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					
General Office Building	715210	3.8600e-003	0.0351	0.0295	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.1663	38.1663	7.3000e-004	7.0000e-004	38.3931
Manufacturing	910800	4.9100e-003	0.0447	0.0375	2.7000e-004		3.3900e-003	3.3900e-003		3.3900e-003	3.3900e-003	0.0000	48.6038	48.6038	9.3000e-004	8.9000e-004	48.8926

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	448553	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9365	23.9365	4.6000e-004	4.4000e-004	24.0787
Total		**0.0112**	**0.1017**	**0.0854**	**6.1000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.7066**	**110.7066**	**2.1200e-003**	**2.0300e-003**	**111.3645**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	461760	43.9847	6.0700e-003	1.2600e-003	44.5110
Manufacturing	278208	26.5005	3.6600e-003	7.6000e-004	26.8177
Parking Lot	105420	10.0417	1.3900e-003	2.9000e-004	10.1619
Unrefrigerated Warehouse-No	1.22303e+006	116.4993	0.0161	3.3300e-003	117.8934
Total		**197.0262**	**0.0272**	**5.6400e-003**	**199.3839**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	461760	43.9847	6.0700e-003	1.2600e-003	44.5110
Manufacturing	278208	26.5005	3.6600e-003	7.6000e-004	26.8177
Parking Lot	105420	10.0417	1.3900e-003	2.9000e-004	10.1619

Unrefrigerated Warehouse-No Rail	1.22303e+006	116.4993	0.0161	3.3300e-003	117.8934
Total		**197.0262**	**0.0272**	**5.6400e-003**	**199.3839**

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	1.7820	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Unmitigated	1.7820	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

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	0.2130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5680					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8000e-004	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

Total	**1.7820**	**1.0000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**5.0000e-005**	**0.0000**	**0.0219**

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	0.2130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5680					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8000e-004	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Total	**1.7820**	**1.0000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**5.0000e-005**	**0.0000**	**0.0219**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.3222	0.1158	0.0704	103.1917
Unmitigated	79.3222	0.1158	0.0704	103.1917

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.57615 / 4.03054	7.0599	8.6600e-003	5.1900e-003	8.8245
Manufacturing	8.51 / 0	7.3971	0.0110	6.6700e-003	9.6598
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	74.6244 / 0	64.8652	0.0962	0.0585	84.7074
Total		**79.3222**	**0.1158**	**0.0704**	**103.1917**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.57615 / 4.03054	7.0599	8.6600e-003	5.1900e-003	8.8245
Manufacturing	8.51 / 0	7.3971	0.0110	6.6700e-003	9.6598
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	74.6244 / 0	64.8652	0.0962	0.0585	84.7074
Total		**79.3222**	**0.1158**	**0.0704**	**103.1917**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	77.8227	4.5992	0.0000	192.8024
Unmitigated	77.8227	4.5992	0.0000	192.8024

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	34.41	6.9849	0.4128	0.0000	17.3048
Manufacturing	45.63	9.2625	0.5474	0.0000	22.9474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	303.34	61.5753	3.6390	0.0000	152.5502
Total		**77.8227**	**4.5992**	**0.0000**	**192.8024**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	34.41	6.9849	0.4128	0.0000	17.3048
Manufacturing	45.63	9.2625	0.5474	0.0000	22.9474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	303.34	61.5753	3.6390	0.0000	152.5502
Total		**77.8227**	**4.5992**	**0.0000**	**192.8024**

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

Albrae Industrial Project- Fremont

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	37.00	1000sqft	22.50	37,000.00	0
Manufacturing	36.80	1000sqft	0.00	36,800.00	0
Unrefrigerated Warehouse-No Rail	322.70	1000sqft	0.00	322,700.00	0
Parking Lot	753.00	Space	0.00	301,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Acreage assigned to largest use. Based on preliminary site plan 08052020

Construction Phase - Project Applicant Construction Schedule

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - Project Specific daily trips. Does not include the truck traffic adjustment

Vehicle Emission Factors - 2023 EMFAC2017 Alameda County no MHD no HHD

Energy Use -

Water And Wastewater - 100% aerobic assumed

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	370.00	90.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	30.00
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tblFleetMix	HHD	0.05	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDA	0.56	0.60
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19

tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	LHD2	5.1800e-003	5.5680e-003
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tblFleetMix	LHD2	5.1800e-003	5.5680e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
tblFleetMix	MCY	5.4910e-003	5.8590e-003
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tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
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tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
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tblFleetMix	OBUS	2.2090e-003	1.4270e-003
tblFleetMix	OBUS	2.2090e-003	1.4270e-003
tblFleetMix	OBUS	2.2090e-003	1.4270e-003

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tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	SBUS	3.3400e-004	3.5600e-004
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblFleetMix	UBUS	2.4560e-003	1.6520e-003
tblLandUse	LotAcreage	0.85	22.50
tblLandUse	LotAcreage	0.84	0.00
tblLandUse	LotAcreage	7.41	0.00
tblLandUse	LotAcreage	6.78	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOffRoadEquipment	UsageHours	8.00	4.70
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tblOffRoadEquipment	UsageHours	8.00	4.70

tblOffRoadEquipment	UsageHours	8.00	1.80
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tblTripsAndVMT	WorkerTripNumber	15.00	0.00
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tblVehicleEF	LHD2	0.01	0.01

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tblVehicleEF	LHD2	0.01	0.02
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tblVehicleEF	LHD2	0.07	0.32
tblVehicleEF	LHD2	0.10	0.05
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tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	0.02	0.02
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tblVehicleEF	MCY	3.9700e-003	3.1980e-003
tblVehicleEF	MCY	1.9850e-003	1.9350e-003
tblVehicleEF	MCY	3.7430e-003	3.0120e-003
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.33	2.34
tblVehicleEF	MCY	0.60	2.18
tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	2.1430e-003	2.1320e-003
tblVehicleEF	MCY	6.9300e-004	6.1200e-004
tblVehicleEF	MCY	0.81	1.61
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	0.50	1.00
tblVehicleEF	MCY	2.88	2.89
tblVehicleEF	MCY	0.60	2.18
tblVehicleEF	MCY	2.46	2.17
tblVehicleEF	MDV	9.7550e-003	3.8520e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.05	0.83
tblVehicleEF	MDV	2.91	3.26
tblVehicleEF	MDV	457.07	386.78
tblVehicleEF	MDV	102.80	83.08
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.25	0.34
tblVehicleEF	MDV	1.8870e-003	1.5680e-003
tblVehicleEF	MDV	2.5190e-003	1.9540e-003
tblVehicleEF	MDV	1.7400e-003	1.4460e-003
tblVehicleEF	MDV	2.3160e-003	1.7970e-003

tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	4.5760e-003	3.7760e-003
tblVehicleEF	MDV	1.0790e-003	8.1200e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.24	0.45
tblVehicleEF	MH	0.03	0.01
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.15	1.09
tblVehicleEF	MH	5.90	2.17
tblVehicleEF	MH	1,214.25	1,537.97
tblVehicleEF	MH	59.49	19.02
tblVehicleEF	MH	1.30	1.27
tblVehicleEF	MH	0.86	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.1590e-003	2.7900e-004
tblVehicleEF	MH	3.2120e-003	3.2610e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0660e-003	2.5600e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06

tblVehicleEF	MH	0.29	0.24
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.34	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	6.9800e-004	1.8800e-004
tblVehicleEF	MH	0.75	0.61
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.29	0.24
tblVehicleEF	MH	0.13	0.09
tblVehicleEF	MH	0.02	1.41
tblVehicleEF	MH	0.37	0.11
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	3.7500e-003	0.00
tblVehicleEF	MHD	0.05	0.00
tblVehicleEF	MHD	0.29	0.00
tblVehicleEF	MHD	0.32	0.00
tblVehicleEF	MHD	4.66	0.00
tblVehicleEF	MHD	166.31	0.00
tblVehicleEF	MHD	1,184.93	0.00
tblVehicleEF	MHD	46.12	0.00
tblVehicleEF	MHD	0.46	0.00
tblVehicleEF	MHD	1.12	0.00
tblVehicleEF	MHD	12.97	0.00
tblVehicleEF	MHD	1.2900e-004	0.00
tblVehicleEF	MHD	0.13	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	3.0820e-003	0.00
tblVehicleEF	MHD	6.6500e-004	0.00
tblVehicleEF	MHD	1.2300e-004	0.00

tblVehicleEF	MHD	0.06	0.00
tblVehicleEF	MHD	3.0000e-003	0.00
tblVehicleEF	MHD	2.9450e-003	0.00
tblVehicleEF	MHD	6.1100e-004	0.00
tblVehicleEF	MHD	6.8000e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	3.9700e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.28	0.00
tblVehicleEF	MHD	1.5960e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	5.4300e-004	0.00
tblVehicleEF	MHD	6.8000e-004	0.00
tblVehicleEF	MHD	0.04	0.00
tblVehicleEF	MHD	0.03	0.00
tblVehicleEF	MHD	3.9700e-004	0.00
tblVehicleEF	MHD	0.05	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.31	0.00
tblVehicleEF	OBUS	0.01	8.4730e-003
tblVehicleEF	OBUS	8.2390e-003	7.2810e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.56	0.81
tblVehicleEF	OBUS	5.79	2.54
tblVehicleEF	OBUS	108.13	82.95
tblVehicleEF	OBUS	1,293.96	1,469.46
tblVehicleEF	OBUS	66.33	19.88

tblVehicleEF	OBUS	0.23	0.32
tblVehicleEF	OBUS	0.91	1.23
tblVehicleEF	OBUS	3.06	0.80
tblVehicleEF	OBUS	2.1000e-005	1.0600e-004
tblVehicleEF	OBUS	2.6580e-003	6.8520e-003
tblVehicleEF	OBUS	8.5400e-004	1.9300e-004
tblVehicleEF	OBUS	2.0000e-005	1.0200e-004
tblVehicleEF	OBUS	2.5240e-003	6.5370e-003
tblVehicleEF	OBUS	7.8500e-004	1.7800e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.35	0.12
tblVehicleEF	OBUS	1.0430e-003	7.9000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6500e-004	1.9700e-004
tblVehicleEF	OBUS	1.2020e-003	1.4590e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	5.6300e-004	6.8900e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.04	0.27
tblVehicleEF	OBUS	0.39	0.13
tblVehicleEF	SBUS	0.84	0.07
tblVehicleEF	SBUS	0.02	4.4000e-003
tblVehicleEF	SBUS	0.07	5.8300e-003
tblVehicleEF	SBUS	10.65	2.77

tblVehicleEF	SBUS	1.01	0.35
tblVehicleEF	SBUS	11.22	0.85
tblVehicleEF	SBUS	974.60	342.95
tblVehicleEF	SBUS	934.35	997.56
tblVehicleEF	SBUS	72.90	4.89
tblVehicleEF	SBUS	6.31	2.88
tblVehicleEF	SBUS	2.72	3.57
tblVehicleEF	SBUS	9.19	1.11
tblVehicleEF	SBUS	5.9520e-003	2.9750e-003
tblVehicleEF	SBUS	9.7910e-003	0.01
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.2910e-003	6.9000e-005
tblVehicleEF	SBUS	5.6940e-003	2.8460e-003
tblVehicleEF	SBUS	2.4480e-003	2.6500e-003
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	1.1870e-003	6.3000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.28	0.31
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004
tblVehicleEF	SBUS	0.09	0.06
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.55	0.03
tblVehicleEF	SBUS	9.6730e-003	3.2700e-003
tblVehicleEF	SBUS	9.0870e-003	9.5500e-003
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	2.9140e-003	3.2800e-004
tblVehicleEF	SBUS	0.03	3.2320e-003
tblVehicleEF	SBUS	1.85	0.44
tblVehicleEF	SBUS	1.3900e-003	1.5600e-004

tblVehicleEF	SBUS	0.12	0.07
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	UBUS	0.27	0.10
tblVehicleEF	UBUS	0.04	1.2390e-003
tblVehicleEF	UBUS	6.51	0.16
tblVehicleEF	UBUS	7.42	0.09
tblVehicleEF	UBUS	2,210.19	1,585.08
tblVehicleEF	UBUS	75.27	1.01
tblVehicleEF	UBUS	15.33	1.24
tblVehicleEF	UBUS	16.64	0.01
tblVehicleEF	UBUS	0.66	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.32	6.1100e-003
tblVehicleEF	UBUS	8.7700e-004	8.0000e-006
tblVehicleEF	UBUS	0.28	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9230e-003
tblVehicleEF	UBUS	0.30	5.8400e-003
tblVehicleEF	UBUS	8.0700e-004	7.0000e-006
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005
tblVehicleEF	UBUS	0.79	1.5220e-003
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.56	5.3860e-003
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	8.8600e-004	1.0000e-005
tblVehicleEF	UBUS	2.2740e-003	5.7000e-005
tblVehicleEF	UBUS	0.05	8.3100e-004
tblVehicleEF	UBUS	1.1250e-003	3.8000e-005

tblVehicleEF	UBUS	1.12	0.10
tblVehicleEF	UBUS	0.01	4.9540e-003
tblVehicleEF	UBUS	0.61	5.8970e-003
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	ST_TR	1.49	2.58
tblVehicleTrips	ST_TR	1.68	6.74
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	SU_TR	0.62	1.07
tblVehicleTrips	SU_TR	1.68	6.74
tblVehicleTrips	WD_TR	11.03	9.73
tblVehicleTrips	WD_TR	3.82	6.62
tblVehicleTrips	WD_TR	1.68	6.74
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2021	6.1658	63.3181	36.4095	0.0656	26.4825	3.1647	29.6472	11.2050	2.9184	14.1234	0.0000	6,348.4494	6,348.4494	1.9746	0.0000	6,397.8140
2022	143.8203	17.3587	22.3175	0.0340	0.0000	0.8939	0.8939	0.0000	0.8340	0.8340	0.0000	3,275.7142	3,275.7142	0.9192	0.0000	3,298.6943
Maximum	**143.8203**	**63.3181**	**36.4095**	**0.0656**	**26.4825**	**3.1647**	**29.6472**	**11.2050**	**2.9184**	**14.1234**	**0.0000**	**6,348.4494**	**6,348.4494**	**1.9746**	**0.0000**	**6,397.8140**

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	lb/day										lb/day					
2021	6.1658	63.3181	36.4095	0.0656	26.4825	3.1647	29.6472	11.2050	2.9184	14.1234	0.0000	6,348.4494	6,348.4494	1.9746	0.0000	6,397.8140
2022	143.8203	17.3587	22.3175	0.0340	0.0000	0.8939	0.8939	0.0000	0.8340	0.8340	0.0000	3,275.7142	3,275.7142	0.9192	0.0000	3,298.6943
Maximum	**143.8203**	**63.3181**	**36.4095**	**0.0656**	**26.4825**	**3.1647**	**29.6472**	**11.2050**	**2.9184**	**14.1234**	**0.0000**	**6,348.4494**	**6,348.4494**	**1.9746**	**0.0000**	**6,397.8140**

	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**

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	lb/day										lb/day					

Area	9.7700	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681
Energy	0.0613	0.5572	0.4681	3.3400e-003		0.0424	0.0424		0.0424	0.0424		668.6746	668.6746	0.0128	0.0123	672.6482
Mobile	4.5273	6.7415	50.4758	0.1628	16.6573	0.1448	16.8021	4.4355	0.1350	4.5705		16,271.0477	16,271.0477	0.4806		16,283.0629
Total	**14.3585**	**7.2998**	**51.0612**	**0.1662**	**16.6573**	**0.1876**	**16.8449**	**4.4355**	**0.1778**	**4.6133**		**16,939.9739**	**16,939.9739**	**0.4941**	**0.0123**	**16,955.9792**

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	lb/day										lb/day					
Area	9.7700	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681
Energy	0.0613	0.5572	0.4681	3.3400e-003		0.0424	0.0424		0.0424	0.0424		668.6746	668.6746	0.0128	0.0123	672.6482
Mobile	4.5273	6.7415	50.4758	0.1628	16.6573	0.1448	16.8021	4.4355	0.1350	4.5705		16,271.0477	16,271.0477	0.4806		16,283.0629
Total	**14.3585**	**7.2998**	**51.0612**	**0.1662**	**16.6573**	**0.1876**	**16.8449**	**4.4355**	**0.1778**	**4.6133**		**16,939.9739**	**16,939.9739**	**0.4941**	**0.0123**	**16,955.9792**

	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	Demolition	Demolition	8/24/2021	9/20/2021	5	20	
2	Site Preparation	Site Preparation	9/20/2021	10/1/2021	5	10	
3	Grading	Grading	10/4/2021	12/24/2021	5	60	

4	Trenching/Foundation	Trenching	12/28/2021	3/21/2022	5	60	
5	Building Construction	Building Construction	3/22/2022	7/25/2022	5	90	
6	Paving	Paving	5/30/2022	7/8/2022	5	30	
7	Architectural Coating	Architectural Coating	5/30/2022	7/8/2022	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 85.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 594,750; Non-Residential Outdoor: 198,250; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	6.00	158	0.38
Demolition	Rubber Tired Dozers	2	6.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.70	247	0.40
Grading	Scrapers	2	4.70	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.70	97	0.37
Trenching/Foundation	Excavators	2	4.00	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Building Construction	Cranes	1	1.60	231	0.29
Building Construction	Forklifts	3	1.80	89	0.20
Building Construction	Generator Sets	1	2.70	84	0.74
Building Construction	Tractors/Loaders/Backhoes	7	4.70	97	0.37
Building Construction	Welders	1	1.80	46	0.45
Paving	Pavers	2	4.00	130	0.42

Paving	Paving Equipment	2	4.00	132	0.36
Paving	Rollers	2	4.00	80	0.38
Architectural Coating	Aerial Lifts	3	3.00	63	0.31
Architectural Coating	Air Compressors	3	2.00	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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	lb/day										lb/day					
Fugitive Dust					8.4162	0.0000	8.4162	1.2743	0.0000	1.2743			0.0000			0.0000
Off-Road	2.2776	22.8210	15.2553	0.0276		1.1202	1.1202		1.0375	1.0375		2,662.7926	2,662.7926	0.7826		2,682.3568
Total	**2.2776**	**22.8210**	**15.2553**	**0.0276**	**8.4162**	**1.1202**	**9.5365**	**1.2743**	**1.0375**	**2.3118**		**2,662.7926**	**2,662.7926**	**0.7826**		**2,682.3568**

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	lb/day										lb/day					
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
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
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
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 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	lb/day										lb/day					
Fugitive Dust					8.4162	0.0000	8.4162	1.2743	0.0000	1.2743			0.0000			0.0000
Off-Road	2.2776	22.8210	15.2553	0.0276		1.1202	1.1202		1.0375	1.0375	0.0000	2,662.7926	2,662.7926	0.7826		2,682.3568
Total	**2.2776**	**22.8210**	**15.2553**	**0.0276**	**8.4162**	**1.1202**	**9.5365**	**1.2743**	**1.0375**	**2.3118**	**0.0000**	**2,662.7926**	**2,662.7926**	**0.7826**		**2,682.3568**

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	lb/day											lb/day				
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
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
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
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**

3.3 Site Preparation - 2021

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	lb/day											lb/day				
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	lb/day											lb/day				
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
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
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

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 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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	lb/day										lb/day					
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
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
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
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**

3.4 Grading - 2021

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	lb/day										lb/day					
Fugitive Dust					5.0492	0.0000	5.0492	2.1079	0.0000	2.1079			0.0000			0.0000
Off-Road	2.3826	26.3647	17.4139	0.0350		1.1317	1.1317		1.0412	1.0412		3,385.4571	3,385.4571	1.0949		3,412.8302
Total	**2.3826**	**26.3647**	**17.4139**	**0.0350**	**5.0492**	**1.1317**	**6.1809**	**2.1079**	**1.0412**	**3.1491**		**3,385.4571**	**3,385.4571**	**1.0949**		**3,412.8302**

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	lb/day										lb/day					
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
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
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
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 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	lb/day										lb/day					

Fugitive Dust					5.0492	0.0000	5.0492	2.1079	0.0000	2.1079			0.0000			0.0000
Off-Road	2.3826	26.3647	17.4139	0.0350		1.1317	1.1317		1.0412	1.0412	0.0000	3,385.4571	3,385.4571	1.0949		3,412.8302
Total	**2.3826**	**26.3647**	**17.4139**	**0.0350**	**5.0492**	**1.1317**	**6.1809**	**2.1079**	**1.0412**	**3.1491**	**0.0000**	**3,385.4571**	**3,385.4571**	**1.0949**		**3,412.8302**

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	lb/day										lb/day					
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
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
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
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**

3.5 Trenching/Foundation - 2021

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	lb/day										lb/day					
Off-Road	0.4165	4.0492	5.5321	8.2700e-003		0.2162	0.2162		0.1989	0.1989		801.0920	801.0920	0.2591		807.5693
Total	**0.4165**	**4.0492**	**5.5321**	**8.2700e-003**		**0.2162**	**0.2162**		**0.1989**	**0.1989**		**801.0920**	**801.0920**	**0.2591**		**807.5693**

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	lb/day										lb/day					
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
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
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
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 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	lb/day										lb/day					
Off-Road	0.4165	4.0492	5.5321	8.2700e-003		0.2162	0.2162		0.1989	0.1989	0.0000	801.0920	801.0920	0.2591		807.5693
Total	**0.4165**	**4.0492**	**5.5321**	**8.2700e-003**		**0.2162**	**0.2162**		**0.1989**	**0.1989**	**0.0000**	**801.0920**	**801.0920**	**0.2591**		**807.5693**

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	lb/day											lb/day				
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
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
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
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**

3.5 Trenching/Foundation - 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	lb/day											lb/day				
Off-Road	0.3671	3.4526	5.4931	8.2800e-003		0.1760	0.1760		0.1620	0.1620		801.2542	801.2542	0.2591		807.7328
Total	**0.3671**	**3.4526**	**5.4931**	**8.2800e-003**		**0.1760**	**0.1760**		**0.1620**	**0.1620**		**801.2542**	**801.2542**	**0.2591**		**807.7328**

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	lb/day											lb/day				
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
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
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

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 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	lb/day										lb/day					
Off-Road	0.3671	3.4526	5.4931	8.2800e-003		0.1760	0.1760		0.1620	0.1620	0.0000	801.2542	801.2542	0.2591		807.7328
Total	**0.3671**	**3.4526**	**5.4931**	**8.2800e-003**		**0.1760**	**0.1760**		**0.1620**	**0.1620**	**0.0000**	**801.2542**	**801.2542**	**0.2591**		**807.7328**

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	lb/day										lb/day					
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
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
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
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**

3.6 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	lb/day										lb/day					
Off-Road	1.0023	9.7574	11.9830	0.0178		0.5165	0.5165		0.4803	0.4803		1,707.4887	1,707.4887	0.4847		1,719.6064
Total	**1.0023**	**9.7574**	**11.9830**	**0.0178**		**0.5165**	**0.5165**		**0.4803**	**0.4803**		**1,707.4887**	**1,707.4887**	**0.4847**		**1,719.6064**

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	lb/day										lb/day					
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
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
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
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 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	lb/day										lb/day					

Off-Road	1.0023	9.7574	11.9830	0.0178		0.5165	0.5165		0.4803	0.4803	0.0000	1,707.4887	1,707.4887	0.4847		1,719.6064
Total	**1.0023**	**9.7574**	**11.9830**	**0.0178**		**0.5165**	**0.5165**		**0.4803**	**0.4803**	**0.0000**	**1,707.4887**	**1,707.4887**	**0.4847**		**1,719.6064**

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	lb/day										lb/day					
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
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
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
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**

3.7 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	lb/day										lb/day					
Off-Road	0.5514	5.5624	7.2902	0.0114		0.2840	0.2840		0.2612	0.2612		1,103.8302	1,103.8302	0.3570		1,112.7552
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5514**	**5.5624**	**7.2902**	**0.0114**		**0.2840**	**0.2840**		**0.2612**	**0.2612**		**1,103.8302**	**1,103.8302**	**0.3570**		**1,112.7552**

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	lb/day										lb/day					
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
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
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
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 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	lb/day										lb/day					
Off-Road	0.5514	5.5624	7.2902	0.0114		0.2840	0.2840		0.2612	0.2612	0.0000	1,103.8302	1,103.8302	0.3570		1,112.7552
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5514**	**5.5624**	**7.2902**	**0.0114**		**0.2840**	**0.2840**		**0.2612**	**0.2612**	**0.0000**	**1,103.8302**	**1,103.8302**	**0.3570**		**1,112.7552**

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	lb/day											lb/day				
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
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
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
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**

3.8 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	lb/day											lb/day				
Archit. Coating	142.0215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2451	2.0388	3.0443	4.8600e-003		0.0934	0.0934		0.0925	0.0925		464.3954	464.3954	0.0775		466.3327
Total	**142.2666**	**2.0388**	**3.0443**	**4.8600e-003**		**0.0934**	**0.0934**		**0.0925**	**0.0925**		**464.3954**	**464.3954**	**0.0775**		**466.3327**

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	lb/day											lb/day				
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
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
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

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 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	lb/day										lb/day					
Archit. Coating	142.0215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2451	2.0388	3.0443	4.8600e-003		0.0934	0.0934		0.0925	0.0925	0.0000	464.3954	464.3954	0.0775		466.3327
Total	**142.2666**	**2.0388**	**3.0443**	**4.8600e-003**		**0.0934**	**0.0934**		**0.0925**	**0.0925**	**0.0000**	**464.3954**	**464.3954**	**0.0775**		**466.3327**

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	lb/day										lb/day					
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
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
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
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**

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	lb/day										lb/day					
Mitigated	4.5273	6.7415	50.4758	0.1628	16.6573	0.1448	16.8021	4.4355	0.1350	4.5705		16,271.0477	16,271.0477	0.4806		16,283.0629
Unmitigated	4.5273	6.7415	50.4758	0.1628	16.6573	0.1448	16.8021	4.4355	0.1350	4.5705		16,271.0477	16,271.0477	0.4806		16,283.0629

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.01	80.29	34.41	653,683	653,683
Manufacturing	243.62	94.94	39.38	564,050	564,050
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	2,175.00	2,175.00	2175.00	6,349,931	6,349,931
Total	2,778.62	2,350.23	2,248.78	7,567,663	7,567,663

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-	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
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722

Manufacturing	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722
Parking Lot	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722
Unrefrigerated Warehouse-No Rail	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0.000000	0.000000	0.001427	0.001652	0.005859	0.000356	0.000722

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	lb/day										lb/day					
NaturalGas Mitigated	0.0613	0.5572	0.4681	3.3400e-003		0.0424	0.0424		0.0424	0.0424		668.6746	668.6746	0.0128	0.0123	672.6482
NaturalGas Unmitigated	0.0613	0.5572	0.4681	3.3400e-003		0.0424	0.0424		0.0424	0.0424		668.6746	668.6746	0.0128	0.0123	672.6482

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	lb/day										lb/day					
General Office Building	1959.48	0.0211	0.1921	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5270	230.5270	4.4200e-003	4.2300e-003	231.8969
Manufacturing	2495.34	0.0269	0.2446	0.2055	1.4700e-003		0.0186	0.0186		0.0186	0.0186		293.5697	293.5697	5.6300e-003	5.3800e-003	295.3142

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
Unrefrigerated Warehouse-No	1228.91	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.5779	144.5779	2.7700e-003	2.6500e-003	145.4371
Total		**0.0613**	**0.5572**	**0.4681**	**3.3400e-003**		**0.0424**	**0.0424**		**0.0424**	**0.0424**		**668.6746**	**668.6746**	**0.0128**	**0.0123**	**672.6482**

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	lb/day										lb/day					
General Office Building	1.95948	0.0211	0.1921	0.1614	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.5270	230.5270	4.4200e-003	4.2300e-003	231.8969
Manufacturing	2.49534	0.0269	0.2446	0.2055	1.4700e-003		0.0186	0.0186		0.0186	0.0186		293.5697	293.5697	5.6300e-003	5.3800e-003	295.3142
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
Unrefrigerated Warehouse-No	1.22891	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.5779	144.5779	2.7700e-003	2.6500e-003	145.4371
Total		**0.0613**	**0.5572**	**0.4681**	**3.3400e-003**		**0.0424**	**0.0424**		**0.0424**	**0.0424**		**668.6746**	**668.6746**	**0.0128**	**0.0123**	**672.6482**

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	lb/day										lb/day					

Mitigated	9.7700	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681
Unmitigated	9.7700	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681

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	lb/day										lb/day					
Architectural Coating	1.1673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0109	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681
Total	**9.7700**	**1.0700e-003**	**0.1174**	**1.0000e-005**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**		**0.2516**	**0.2516**	**6.6000e-004**		**0.2681**

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	lb/day										lb/day					
Architectural Coating	1.1673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0109	1.0700e-003	0.1174	1.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004		0.2516	0.2516	6.6000e-004		0.2681
Total	**9.7700**	**1.0700e-003**	**0.1174**	**1.0000e-005**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**		**0.2516**	**0.2516**	**6.6000e-004**		**0.2681**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Albrae Industrial Project- Fremont Truck Traffic (Operation)

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	36.80	1000sqft	0.84	36,800.00	0
Refrigerated Warehouse-No Rail	322.70	1000sqft	7.41	322,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Using the Manufacturing and Warehouse land use as a land use proxy to compute the truck traffic

Construction Phase - Truck Traffic Operational Model

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - 13% of trips = truck trips for both land uses. 325 trips/322.7 ksf =1.01, 36 trips/36.8 ksf = 0.98. Using an average trip length of 17 miles

Energy Use -

Water And Wastewater - 100% aerobic assumed

Fleet Mix - Truck Traffic: Assuming 50% MHD and 50% HHD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
Adjusted Flewet Mix and Efs - see EMFAC2017 output			

2.0 Emissions Summary

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																
Energy																
Mobile											0.0000	2,823.1818	2,823.1818	0.0370	0.0000	2,824.1058
Waste																
Water																
Total																

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											0.0000	2,823.1818	2,823.1818	0.0370	0.0000	2,824.1058
Unmitigated											0.0000	2,823.1818	2,823.1818	0.0370	0.0000	2,824.1058

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	36.06	36.06	36.06	223,164	223,164
Refrigerated Warehouse-No Rail	325.93	325.93	325.93	2,016,836	2,016,836
Total	361.99	361.99	361.99	2,240,000	2,240,000

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
Manufacturing	9.50	7.30	17.00	0.00	0.00	100.00	100	0	0
Refrigerated Warehouse-No Rail	9.50	7.30	17.00	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
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

Albrae Industrial Project- Fremont Truck Traffic (Operation) - Alameda County, Summer

Albrae Industrial Project- Fremont Truck Traffic (Operation)

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	36.80	1000sqft	0.84	36,800.00	0
Refrigerated Warehouse-No Rail	322.70	1000sqft	7.41	322,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Using the Manufacturing and Warehouse land use as a land use proxy to compute the truck traffic

Construction Phase - Truck Traffic Operational Model

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - 13% of trips = truck trips for both land uses. 325 trips/322.7 ksf =1.01, 36 trips/36.8 ksf = 0.98. Using an average trip length of 17 miles

Energy Use -

Water And Wastewater - 100% aerobic assumed

Fleet Mix - Truck Traffic: Assuming 50% MHD and 50% HHD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
Changed Fleet Mix and Efs - see Emfac Output			

2.0 Emissions Summary

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	lb/day										lb/day					
Mobile	0.5059	31.1687	6.9196	0.1604	5.6910	0.2179	5.9090	1.6363	0.2085	1.8448		17,119.4049	17,119.4049	0.2241		17,125.0081
Total																

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	lb/day										lb/day					
Mitigated	0.5059	31.1687	6.9196	0.1604	5.6910	0.2179	5.9090	1.6363	0.2085	1.8448		17,119.4049	17,119.4049	0.2241		17,125.0081
Unmitigated	0.5059	31.1687	6.9196	0.1604	5.6910	0.2179	5.9090	1.6363	0.2085	1.8448		17,119.4049	17,119.4049	0.2241		17,125.0081

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	36.06	36.06	36.06	223,164	223,164
Refrigerated Warehouse-No Rail	325.93	325.93	325.93	2,016,836	2,016,836
Total	361.99	361.99	361.99	2,240,000	2,240,000

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
Manufacturing	9.50	7.30	17.00	0.00	0.00	100.00	100	0	0
Refrigerated Warehouse-No Rail	9.50	7.30	17.00	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
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	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	lb/day										lb/day					
NaturalGas Mitigated	0.1956	1.7780	1.4935	0.0107		0.1351	0.1351		0.1351	0.1351		2,133.5578	2,133.5578	0.0409	0.0391	2,146.2364
NaturalGas Unmitigated	0.1956	1.7780	1.4935	0.0107		0.1351	0.1351		0.1351	0.1351		2,133.5578	2,133.5578	0.0409	0.0391	2,146.2364

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	lb/day										lb/day					
Manufacturing	2495.34	0.0269	0.2446	0.2055	1.4700e-003		0.0186	0.0186		0.0186	0.0186		293.5697	293.5697	5.6300e-003	5.3800e-003	295.3142
Refrigerated Warehouse-No Rail	15639.9	0.1687	1.5333	1.2880	9.2000e-003		0.1165	0.1165		0.1165	0.1165		1,839.9881	1,839.9881	0.0353	0.0337	1,850.9222
Total		**0.1956**	**1.7780**	**1.4935**	**0.0107**		**0.1351**	**0.1351**		**0.1351**	**0.1351**		**2,133.5578**	**2,133.5578**	**0.0409**	**0.0391**	**2,146.2364**

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	lb/day										lb/day					
Manufacturing	2.49534	0.0269	0.2446	0.2055	1.4700e-003		0.0186	0.0186		0.0186	0.0186		293.5697	293.5697	5.6300e-003	5.3800e-003	295.3142
Refrigerated Warehouse-No Rail	15.6399	0.1687	1.5333	1.2880	9.2000e-003		0.1165	0.1165		0.1165	0.1165		1,839.9881	1,839.9881	0.0353	0.0337	1,850.9222
Total		**0.1956**	**1.7780**	**1.4935**	**0.0107**		**0.1351**	**0.1351**		**0.1351**	**0.1351**		**2,133.5578**	**2,133.5578**	**0.0409**	**0.0391**	**2,146.2364**

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	lb/day										lb/day					
Mitigated	8.7239	3.3000e-004	0.0367	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0787	0.0787	2.1000e-004		0.0838
Unmitigated	8.7239	3.3000e-004	0.0367	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0787	0.0787	2.1000e-004		0.0838

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	lb/day										lb/day					

Architectural Coating	1.0272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-003	3.3000e-004	0.0367	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0787	0.0787	2.1000e-004		0.0838
Total	**8.7239**	**3.3000e-004**	**0.0367**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0787**	**0.0787**	**2.1000e-004**		**0.0838**

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	lb/day										lb/day					
Architectural Coating	1.0272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4000e-003	3.3000e-004	0.0367	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0787	0.0787	2.1000e-004		0.0838
Total	**8.7239**	**3.3000e-004**	**0.0367**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0787**	**0.0787**	**2.1000e-004**		**0.0838**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Albrae Industrial Project- Fremont 2030

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	37.00	1000sqft	22.50	37,000.00	0
Manufacturing	36.80	1000sqft	0.00	36,800.00	0
Unrefrigerated Warehouse-No Rail	322.70	1000sqft	0.00	322,700.00	0
Parking Lot	753.00	Space	0.00	301,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Acreage assigned to largest use. Based on preliminary site plan 08052020

Construction Phase - Project Applicant Construction Schedule

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - Project-Specific Trip Generation Rates Trucks (total 350 trips) modeled seperately. Warehouse = 2500 -13% (6.74), Manuafacturing = 200 13% (6.62)

Vehicle Emission Factors - 2030 EMFAC2017 Alameda County

Energy Use -

Water And Wastewater - 100% aerobic assumed

Table Name	Column Name	Default Value	New Value
Adjusted Flewet Mix and Efs - see EMFAC2017 output			
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	ST_TR	1.49	2.58
tblVehicleTrips	ST_TR	1.68	6.74
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	SU_TR	0.62	1.08
tblVehicleTrips	SU_TR	1.68	6.74
tblVehicleTrips	WD_TR	11.03	9.73
tblVehicleTrips	WD_TR	3.82	6.62
tblVehicleTrips	WD_TR	1.68	6.74
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

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											0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Energy											0.0000	307.7328	307.7328	0.0293	7.6600e-003	310.7484
Mobile											0.0000	2,020.8439	2,020.8439	0.0837	0.0000	2,022.9374
Waste											77.8227	0.0000	77.8227	4.5992	0.0000	192.8024
Water											31.7397	47.5825	79.3222	0.1158	0.0704	103.1917
Total											**109.5624**	**2,376.1797**	**2,485.7421**	**4.8281**	**0.0780**	**2,629.7018**

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											0.0000	2,020.8439	2,020.8439	0.0837	0.0000	2,022.9374
Unmitigated											0.0000	2,020.8439	2,020.8439	0.0837	0.0000	2,022.9374

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	360.01	80.29	34.41	653,683	653,683
Manufacturing	243.62	94.94	39.74	564,203	564,203
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	2,175.00	2,175.00	2175.00	6,349,931	6,349,931
Total	2,778.62	2,350.23	2,249.15	7,567,817	7,567,817

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
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.605450	0.058671	0.183591	0.114426	0.022199	0.005819	0.000000	0.000000	0.001365	0.001842	0.005485	0.000425	0.000727
Manufacturing	0.605450	0.058671	0.183591	0.114426	0.022199	0.005819	0.000000	0.000000	0.001365	0.001842	0.005485	0.000425	0.000727

Parking Lot	0.605450	0.058671	0.183591	0.114426	0.022199	0.005819	0.000000	0.000000	0.001365	0.001842	0.005485	0.000425	0.000727
Unrefrigerated Warehouse-No Rail	0.605450	0.058671	0.183591	0.114426	0.022199	0.005819	0.000000	0.000000	0.001365	0.001842	0.005485	0.000425	0.000727

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	197.0262	197.0262	0.0272	5.6300e-003	199.3839
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	197.0262	197.0262	0.0272	5.6300e-003	199.3839
NaturalGas Mitigated	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	110.7066	110.7066	2.1200e-003	2.0300e-003	111.3645
NaturalGas Unmitigated	0.0112	0.1017	0.0854	6.1000e-004		7.7300e-003	7.7300e-003		7.7300e-003	7.7300e-003	0.0000	110.7066	110.7066	2.1200e-003	2.0300e-003	111.3645

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	715210	3.8600e-003	0.0351	0.0295	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.1663	38.1663	7.3000e-004	7.0000e-004	38.3931
Manufacturing	910800	4.9100e-003	0.0447	0.0375	2.7000e-004		3.3900e-003	3.3900e-003		3.3900e-003	3.3900e-003	0.0000	48.6038	48.6038	9.3000e-004	8.9000e-004	48.8926

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	448553	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9365	23.9365	4.6000e-004	4.4000e-004	24.0787
Total		**0.0112**	**0.1017**	**0.0854**	**6.1000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.7066**	**110.7066**	**2.1200e-003**	**2.0300e-003**	**111.3645**

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					
General Office Building	715210	3.8600e-003	0.0351	0.0295	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.1663	38.1663	7.3000e-004	7.0000e-004	38.3931
Manufacturing	910800	4.9100e-003	0.0447	0.0375	2.7000e-004		3.3900e-003	3.3900e-003		3.3900e-003	3.3900e-003	0.0000	48.6038	48.6038	9.3000e-004	8.9000e-004	48.8926
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	448553	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9365	23.9365	4.6000e-004	4.4000e-004	24.0787
Total		**0.0112**	**0.1017**	**0.0854**	**6.1000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**110.7066**	**110.7066**	**2.1200e-003**	**2.0300e-003**	**111.3645**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	461760	43.9847	6.0700e-003	1.2600e-003	44.5110
Manufacturing	278208	26.5005	3.6600e-003	7.6000e-004	26.8177
Parking Lot	105420	10.0417	1.3900e-003	2.9000e-004	10.1619

Unrefrigerated Warehouse-No Rail	1.22303e+006	116.4993	0.0161	3.3300e-003	117.8934
Total		**197.0262**	**0.0272**	**5.6400e-003**	**199.3839**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	461760	43.9847	6.0700e-003	1.2600e-003	44.5110
Manufacturing	278208	26.5005	3.6600e-003	7.6000e-004	26.8177
Parking Lot	105420	10.0417	1.3900e-003	2.9000e-004	10.1619
Unrefrigerated Warehouse-No Rail	1.22303e+006	116.4993	0.0161	3.3300e-003	117.8934
Total		**197.0262**	**0.0272**	**5.6400e-003**	**199.3839**

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	1.7820	9.0000e-005	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

Unmitigated	1.7820	9.0000e-005	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219

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	0.2130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5680					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Total	**1.7820**	**9.0000e-005**	**0.0105**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**5.0000e-005**	**0.0000**	**0.0219**

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	0.2130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5680					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0105	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0205	0.0205	5.0000e-005	0.0000	0.0219
Total	**1.7820**	**9.0000e-005**	**0.0105**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**5.0000e-005**	**0.0000**	**0.0219**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	79.3222	0.1158	0.0704	103.1917
Unmitigated	79.3222	0.1158	0.0704	103.1917

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.57615 / 4.03054	7.0599	8.6600e-003	5.1900e-003	8.8245
Manufacturing	8.51 / 0	7.3971	0.0110	6.6700e-003	9.6598
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	74.6244 / 0	64.8652	0.0962	0.0585	84.7074
Total		**79.3222**	**0.1158**	**0.0704**	**103.1917**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.57615 / 4.03054	7.0599	8.6600e-003	5.1900e-003	8.8245
Manufacturing	8.51 / 0	7.3971	0.0110	6.6700e-003	9.6598
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	74.6244 / 0	64.8652	0.0962	0.0585	84.7074
Total		**79.3222**	**0.1158**	**0.0704**	**103.1917**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	77.8227	4.5992	0.0000	192.8024
Unmitigated	77.8227	4.5992	0.0000	192.8024

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	34.41	6.9849	0.4128	0.0000	17.3048
Manufacturing	45.63	9.2625	0.5474	0.0000	22.9474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	303.34	61.5753	3.6390	0.0000	152.5502
Total		**77.8227**	**4.5992**	**0.0000**	**192.8024**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	34.41	6.9849	0.4128	0.0000	17.3048
Manufacturing	45.63	9.2625	0.5474	0.0000	22.9474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	303.34	61.5753	3.6390	0.0000	152.5502
Total		**77.8227**	**4.5992**	**0.0000**	**192.8024**

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

Albrae Industrial Project- Fremont Truck Traffic (Operation) - Alameda County, Annual

Albrae Industrial Project- Fremont Truck Traffic (Operation)

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	36.80	1000sqft	0.84	36,800.00	0
Refrigerated Warehouse-No Rail	322.70	1000sqft	7.41	322,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in Fremont part of Alameda County. Using the latest published PG&E intensity factor (2017)

Land Use - Using the Manufacturing and Warehouse land use as a land use proxy to compute the truck traffic

Construction Phase - Truck Traffic Operational Model

Off-road Equipment - project applicant equipment list

Off-road Equipment - project applicant equipment list

Trips and VMT - EMFAC2017 post model for construction traffic

Demolition - Demo 171,000 square feet of building

Grading -

Vehicle Trips - 30% of trips = truck trips for both land uses. 167 trips/322.7 ksf =0.5, 83 trips/36.8 ksf = 2.56. Using an average trip length of 17 miles

Energy Use -

Water And Wastewater - 100% aerobic assumed

Fleet Mix - Truck Traffic: Assuming 50% MHD and 50% HHD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
Adjusted Flewet Mix and Efs - see EMFAC2017 output			

2.0 Emissions Summary

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																
Energy																
Mobile											0.0000	2,465.3923	2,465.3923	0.0363	0.0000	2,466.3005
Waste																
Water																
Total																

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											0.0000	2,465.3923	2,465.3923	0.0363	0.0000	2,466.3005
Unmitigated											0.0000	2,465.3923	2,465.3923	0.0363	0.0000	2,466.3005

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	36.06	36.06	36.06	223,164	223,164
Refrigerated Warehouse-No Rail	325.93	325.93	325.93	2,016,836	2,016,836
Total	361.99	361.99	361.99	2,240,000	2,240,000

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
Manufacturing	17.00	17.00	17.00	0.00	0.00	100.00	100	0	0
Refrigerated Warehouse-No Rail	17.00	17.00	17.00	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
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

Attachment 2: EMFAC2017 Emissions and CARB SAFE Off-Model Adjustment Factors

Project **40517 Albrae Fremont** **CalEEMod Construction Inputs**

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15		300	-	778	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3,240	-	15,560
Site Preparation	18		180	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1,944	-	-
Grading	20		1,200	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	12,960	-	-
Trenching	10		600	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	6,480	-	-
Building Construction	289	114	26,010	10,260	4,320	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	280,908	74,898	31,536
Paving	15		450	-	646	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	4,860	-	4,716
Architectural Coating	58		1,740	-	-	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	18,792	-	-

Number of Days Per Year					
2021	8/24/2021	12/31/21	130	**94**	
2022	1/1/22	7/8/2022	189	**135**	
			319	**229**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	8/24/2021	9/20/2021	5	20
Site Preparation	9/20/2021	10/1/2021	5	10
Grading	10/4/2021	12/24/2021	5	60
Trenching	12/28/2021	3/21/2022	5	60
Building Construction	3/22/2022	7/25/2022	5	90
Paving	5/30/2022	7/8/2022	5	30
Architectural Coating	5/30/2022	7/8/2022	5	30

40517 Albrae Fremont

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	9,360.86	248,200.59	65,511.07	784.42	15,491.73	8,100.80	23,592.52	2,331.01	4,769.52	7,100.53	84,408,246
Vendor	14,376.52	321,589.53	90,699.12	1,036.41	22,394.50	13,079.90	35,474.40	3,369.66	7,694.45	11,064.11	110,829,428
Worker	30,781.38	27,131.47	325,429.08	873.09	98,426.02	15,325.58	113,751.60	14,809.99	6,390.89	21,200.88	95,525,022
Total (g)	54,518.75	596,921.59	481,639.26	2,693.92	136,312.25	36,506.28	172,818.52	20,510.66	18,854.86	39,365.52	290,762,696
Total (lbs)	120.19	1,315.99	1,061.83	5.94	300.52	80.48	381.00	45.22	41.57	86.79	641,022
Total (tons)	0.06	0.66	0.53	0.00	0.15	0.04	0.19	0.02	0.02	0.04	321
Total (MT)											291

YEAR											
						Tons					
	2021	0.0245	0.2681	0.2164	0.0012	0.0612	0.0164	0.0776	0.0092	0.0085	0.0177	118.4926
	2022	0.0356	0.3898	0.3146	0.0018	0.0890	0.0238	0.1129	0.0134	0.0123	0.0257	172.2701

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2021**	**1.0002**	**1.0001**	**1.0002**	**1.0009**	**1.0005**	**1.0023**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Alameda
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNI	N2O_IDLE)	N2O_STRE	ROG_RUNI	ROG_IDLE)	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE)	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Alameda	2021	HHDT	Aggregate	Aggregate	Gasoline	9.245674	1022.322	184.9875	3.481314	0	0.262258	0.000626	0	0.000359	0.005	0.02646	0.000681	0	0.000391	0.02	0.06174	2182.363	0	46.73001	0.088351	0	0.000194	0.139969	0	0.008209	0.422649	0	0.001013	0.093644	0.586534	0.024156	0.037395	0.616729	0	0.00111	0.093644	0.586534	0.024156	0.037395	35.63189	0	3.980893	0.021596	0	0.000462
Alameda	2021	HHDT	Aggregate	Aggregate	Diesel	14388.37	1874628	157730.2	3.940132	66.39193	1.848364	0.056452	0.090822	0	0.00892	0.026224	0.059004	0.094929	0	0.035679	0.061189	1489.777	12441.16	0	0.006024	0.235693	0	0.234172	1.955577	0	0.129688	5.074407	0	0	0	0	0.147639	5.776826	0	0	0	0	0	0	0.501026	65.26408	0	0.014075	0.117538	0
Alameda	2021	HHDT	Aggregate	Aggregate	Natural Ga	380.1489	15489.07	1482.581	1.263182	19.89788	0	0.004465	0.022854	0	0.009	0.02646	0.004667	0.023887	0	0.036	0.06174	3128.945	3958.333	0	3.371501	1.219786	0	0.637856	0.806932	0	0.123097	0.0355	0	0	0	0	3.526232	1.265473	0	0	0	0	0	0	10.88299	21.66562	0	0	0	0
Alameda	2021	LDA	Aggregate	Aggregate	Gasoline	643846.3	23456819	3010602	0.047127	0	0.224251	0.001419	0	0.00183	0.002	0.01575	0.001543	0	0.00199	0.008	0.03675	270.7509	0	57.71532	0.002905	0	0.062188	0.005018	0	0.028556	0.011591	0	0.290414	0.119683	0.246102	0.209404	0.217333	0.016904	0	0.317965	0.119683	0.246102	0.209404	0.217333	0.693193	0	2.478666	0.002679	0	0.000571
Alameda	2021	LDA	Aggregate	Aggregate	Diesel	7140.126	264939.3	33233.8	0.113991	0	0	0.010117	0	0	0.002	0.01575	0.010575	0	0	0.008	0.03675	216.593	0	0	0.000909	0	0	0.034045	0	0	0.019581	0	0	0	0	0	0.022291	0	0	0	0	0	0	0.25599	0	0	0.002048	0	0
Alameda	2021	LDA	Aggregate	Aggregate	Electricity	17125.1	649064.6	84207.95	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2021	LDT1	Aggregate	Aggregate	Gasoline	66399	2359125	304135.2	0.106817	0	0.296974	0.001905	0	0.00247	0.002	0.01575	0.002072	0	0.002686	0.008	0.03675	314.1232	0	67.2804	0.005778	0	0.083878	0.008208	0	0.031586	0.025406	0	0.427661	0.210919	0.766547	0.392514	0.450308	0.037042	0	0.468232	0.210919	0.766547	0.392514	0.450308	1.172104	0	2.646624	0.003109	0	0.000666
Alameda	2021	LDT1	Aggregate	Aggregate	Diesel	46.09621	741.565	149.5479	1.203378	0	0	0.171857	0	0	0.002	0.01575	0.179628	0	0	0.008	0.03675	423.8716	0	0	0.010063	0	0	0.066627	0	0	0.21664	0	0	0	0	0	0.24663	0	0	0	0	0	0	1.244688	0	0	0.004007	0	0
Alameda	2021	LDT1	Aggregate	Aggregate	Electricity	321.7501	12861.12	1605.904	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2021	LDT2	Aggregate	Aggregate	Gasoline	212628.3	7710663	988229.3	0.085751	0	0.340973	0.001404	0	0.001753	0.002	0.01575	0.001527	0	0.001906	0.008	0.03675	343.2474	0	74.34634	0.004051	0	0.080284	0.00707	0	0.036305	0.016513	0	0.381832	0.138609	0.468688	0.292836	0.283896	0.024085	0	0.418057	0.138609	0.468688	0.292836	0.283896	0.890638	0	3.103874	0.003397	0	0.000736
Alameda	2021	LDT2	Aggregate	Aggregate	Diesel	1221.379	52545.3	5987.178	0.049421	0	0	0.005428	0	0	0.002	0.01575	0.005673	0	0	0.008	0.03675	290.6699	0	0	0.000751	0	0	0.045689	0	0	0.016179	0	0	0	0	0	0.018419	0	0	0	0	0	0	0.13753	0	0	0.002748	0	0
Alameda	2021	LDT2	Aggregate	Aggregate	Electricity	1502.599	49387.55	7579.032	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2021	LHDT1	Aggregate	Aggregate	Gasoline	15865.62	562596.9	236374	0.267369	0.039797	0.56049	0.002155	0	0.000395	0.002	0.03276	0.002344	0	0.00043	0.008	0.07644	1021.26	122.3398	19.21539	0.012631	0.125046	0.026872	0.016018	0.003188	0.043235	0.062243	0.455751	0.135692	0.127375	0.910385	0.025552	0.045811	0.090824	0.665031	0.148565	0.127375	0.910385	0.025552	0.045811	1.136056	3.747452	1.812739	0.010106	0.001211	0.00019
Alameda	2021	LHDT1	Aggregate	Aggregate	Diesel	9438.928	371117.4	118729.8	1.972463	2.181936	0	0.024647	0.027252	0	0.003	0.03276	0.025761	0.028484	0	0.012	0.07644	554.8606	135.2969	0	0.007734	0.005098	0	0.087216	0.021267	0	0.166498	0.10976	0	0	0	0	0.189547	0.124954	0	0	0	0	0	0	0.710571	0.909745	0	0.005245	0.001279	0
Alameda	2021	LHDT2	Aggregate	Aggregate	Gasoline	2411.064	84654.66	35921.26	0.271836	0.039773	0.554272	0.001985	0	0.000337	0.002	0.03822	0.002159	0	0.000366	0.008	0.08918	1169.882	141.0395	21.86547	0.010148	0.125789	0.026131	0.017012	0.003135	0.042225	0.04675	0.455724	0.131298	0.120416	0.842005	0.02319	0.041605	0.068218	0.664991	0.143754	0.120416	0.842005	0.02319	0.041605	0.853542	3.752699	1.806549	0.011577	0.001396	0.000216
Alameda	2021	LHDT2	Aggregate	Aggregate	Diesel	3486.927	137555.7	43861.15	1.594586	2.15765	0	0.023355	0.027209	0	0.003	0.03822	0.024411	0.028439	0	0.012	0.08918	621.4323	216.0229	0	0.007242	0.005098	0	0.09768	0.033956	0	0.155912	0.10976	0	0	0	0	0.177496	0.124954	0	0	0	0	0	0	0.660936	0.909745	0	0.005875	0.002042	0
Alameda	2021	MCY	Aggregate	Aggregate	Gasoline	29044.71	225392.9	58089.42	1.174932	0	0.273434	0.001878	0	0.003261	0.001	0.00504	0.002004	0	0.003453	0.004	0.01176	215.7768	0	62.55906	0.348085	0	0.263285	0.067289	0	0.01542	2.390978	0	2.022377	0.758054	2.375005	1.015093	1.621247	2.932998	0	2.200103	0.758054	2.375005	1.015093	1.621247	21.00411	0	9.041339	0.002135	0	0.000619
Alameda	2021	MDV	Aggregate	Aggregate	Gasoline	130301.2	4523861	598871.3	0.113848	0	0.432107	0.001531	0	0.002074	0.002	0.01575	0.001665	0	0.002254	0.008	0.03675	413.4208	0	90.78955	0.005391	0	0.100508	0.008687	0	0.040152	0.024054	0	0.513859	0.162803	0.519775	0.352967	0.338772	0.034194	0	0.562555	0.162803	0.519775	0.352967	0.338772	1.073458	0	3.756972	0.004091	0	0.000898
Alameda	2021	MDV	Aggregate	Aggregate	Diesel	2697.743	113530.8	13150.05	0.047847	0	0	0.004921	0	0	0.002	0.01575	0.005143	0	0	0.008	0.03675	378.3717	0	0	0.000568	0	0	0.059475	0	0	0.01222	0	0	0	0	0	0.013912	0	0	0	0	0	0	0.205589	0	0	0.003577	0	0
Alameda	2021	MDV	Aggregate	Aggregate	Electricity	564.54	19409.87	2887.037	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2021	MH	Aggregate	Aggregate	Gasoline	2306.198	22007.17	230.7121	0.463642	0	0.332679	0.001716	0	0.000382	0.003	0.05586	0.001866	0	0.000416	0.012	0.13034	1778.813	0	26.37085	0.017282	0	0.033063	0.027484	0	0.034189	0.077615	0	0.142628	0.092394	2.282033	0.036986	0.098362	0.113255	0	0.15616	0.092394	2.282033	0.036986	0.098362	2.044209	0	3.169352	0.017603	0	0.000261
Alameda	2021	MH	Aggregate	Aggregate	Diesel	708.4044	7263.473	70.84044	4.249624	0	0	0.090234	0	0	0.004	0.05586	0.094314	0	0	0.016	0.13034	1027.491	0	0	0.005028	0	0	0.161507	0	0	0.108259	0	0	0	0	0	0.123245	0	0	0	0	0	0	0.385678	0	0	0.009713	0	0
Alameda	2021	MHDT	Aggregate	Aggregate	Gasoline	1608.989	86820.78	32192.65	0.577455	0.088364	0.385994	0.001227	0	0.000438	0.003	0.05586	0.001334	0	0.000476	0.012	0.13034	1774.888	544.414	40.17365	0.017956	0.261414	0.042037	0.027493	0.007344	0.029274	0.088549	1.010908	0.229883	0.090294	0.5302	0.019542	0.03484	0.129211	1.475115	0.251693	0.090294	0.5302	0.019542	0.03484	2.054761	15.09545	5.145314	0.017564	0.005387	0.000398
Alameda	2021	MHDT	Aggregate	Aggregate	Diesel	14124.74	906519.8	143441.2	2.89436	8.073621	1.483957	0.069497	0.022622	0	0.003	0.05586	0.07264	0.023645	0	0.012	0.13034	1065.377	899.7902	0	0.008088	0.005316	0	0.167462	0.141434	0	0.174124	0.114448	0	0	0	0	0.198226	0.130291	0	0	0	0	0	0	0.501116	2.577504	0	0.010065	0.008501	0
Alameda	2021	OBUS	Aggregate	Aggregate	Gasoline	592.6762	30222.58	11858.27	0.599082	0.064983	0.329608	0.000925	0	0.000235	0.003	0.05586	0.001006	0	0.000256	0.012	0.13034	1806.576	383.3188	27.18207	0.017871	0.19855	0.031652	0.028745	0.005472	0.025933	0.086411	0.745102	0.165119	0.029919	0.339006	0.01771	0.038232	0.12609	1.087252	0.180784	0.029919	0.339006	0.01771	0.038232	1.942819	5.767597	3.549061	0.017878	0.003793	0.000269
Alameda	2021	OBUS	Aggregate	Aggregate	Diesel	396.9961	29590.52	3870.884	3.766642	21.99786	1.547911	0.087607	0.084752	0	0.003	0.05586	0.091568	0.088584	0	0.012	0.13034	1276.156	2910.153	0	0.010774	0.059769	0	0.200594	0.457435	0	0.23196	1.286806	0	0	0	0	0.264069	1.46493	0	0	0	0	0	0	0.689166	13.84869	0	0.012056	0.027494	0
Alameda	2021	SBUS	Aggregate	Aggregate	Gasoline	79.47544	4047.704	317.9018	0.259624	0.92653	0.514219	0.001246	0	0.000562	0.002	0.3192	0.001356	0	0.000612	0.008	0.7448	840.7675	2516.613	47.18654	0.007258	2.492964	0.056776	0.017609	0.093851	0.051647	0.034324	10.64152	0.315158	0.029744	0.195349	0.005555	0.011752	0.050085	15.52808	0.345059	0.029744	0.195349	0.005555	0.011752	0.71049	82.24088	8.313234	0.00832	0.024904	0.000467
Alameda	2021	SBUS	Aggregate	Aggregate	Diesel	294.5183	9475.476	3398.701	5.686831	38.50073	1.101289	0.032342	0.041128	0	0.003	0.3192	0.033804	0.042988	0	0.012	0.7448	1107.62	3615.036	0	0.003613	0.012801	0	0.174102	0.568233	0	0.077788	0.275592	0	0	0	0	0.088555	0.31374	0	0	0	0	0	0	0.225696	7.125233	0	0.010464	0.034153	0
Alameda	2021	UBUS	Aggregate	Aggregate	Gasoline	8.849771	522.9744	35.39908	0.263189	0	0.722108	0.001322	0	0.000397	0.002651	0.049706	0.001438	0	0.000432	0.010605	0.115982	1884.462	0	68.65806	0.005536	0	0.084857	0.021995	0	0.063715	0.018323	0	0.36871	0.048518	0.288709	0.008641	0.0134	0.026737	0	0.403691	0.048518	0.288709	0.008641	0.0134	0.326365	0	5.910382	0.018648	0	0.000679
Alameda	2021	UBUS	Aggregate	Aggregate	Diesel	577.2036	68223.72	2308.814	1.616413	0	0	0.006249	0	0	0.007961	0.031549	0.006532	0	0	0.031845	0.073614	1641.223	0	0	0.118547	0	0	0.257977	0	0	0.001701	0	0	0	0	0	0.120994	0	0	0	0	0	0	0.195266	0	0	0.015515	0	0
Alameda	2021	UBUS	Aggregate	Aggregate	Electricity	12.02059	1081.877	48.08237	0	0	0	0	0	0	0.008998	0.026472	0	0	0	0.03599	0.061768	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alameda	2021	UBUS	Aggregate	Aggregate	Natural Ga	110.9377	11688.85	443.7509	0.461781	0	0	0.00302	0	0	0.007688	0.032884	0.003156	0	0	0.030754	0.07673	1919.967	0	0	5.949724	0	0	0.391398	0	0	0.085026	0	0	0	0	0	6.072148	0	0	0	0	0	0	45.83132	0	0	0	0	0

40517 Albrae Fremont

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	6,801.89	220,884.91	60,021.83	766.52	15,491.73	6,834.74	22,326.47	2,331.01	3,557.44	5,888.45	82,542,084
Vendor	9,709.39	277,899.10	79,742.50	1,011.81	22,394.50	11,007.35	33,401.85	3,369.66	5,710.30	9,079.96	108,256,980
Worker	28,393.37	23,976.67	301,512.34	846.40	98,426.02	15,296.29	113,722.30	14,809.99	6,363.83	21,173.81	92,973,262
Total (g)	44,904.65	522,760.68	441,276.67	2,624.73	136,312.25	33,138.38	169,450.63	20,510.66	15,631.56	36,142.23	283,772,326
Total (lbs)	99.00	1,152.49	972.85	5.79	300.52	73.06	373.57	45.22	34.46	79.68	625,611
Total (tons)	0.05	0.58	0.49	0.00	0.15	0.04	0.19	0.02	0.02	0.04	313
Total (MT)											284

YEAR											
						Tons					
	2021	0.0202	0.2348	0.1982	0.0012	0.0612	0.0149	0.0761	0.0092	0.0070	0.0162	115.6439
	2022	0.0293	0.3414	0.2882	0.0017	0.0890	0.0216	0.1107	0.0134	0.0102	0.0236	168.1284

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2022**	**1.0004**	**1.0003**	**1.0004**	**1.0018**	**1.0014**	**1.0065**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Alameda
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PMT	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Alameda	2022	HHDT	Aggregate	Aggregate	Gasoline	8.941515	987.2284	178.9018	3.348986	0	0.216392	0.000653	0	0.000329	0.005	0.02646	0.00071	0	0.000358	0.02	0.06174	2140.185	0	46.85962	0.084822	0	0.000205	0.137375	0	0.006869	0.400667	0	0.001071	0.088738	0.537463	0.023036	0.035192	0.584652	0	0.001172	0.088738	0.537463	0.023036	0.035192	34.02235	0	4.303386	0.021179	0	0.000464
Alameda	2022	HHDT	Aggregate	Aggregate	Diesel	14783.07	1924288	161484.3	3.39429	65.73321	2.029512	0.033443	0.032017	0	0.008922	0.026231	0.034956	0.033465	0	0.035688	0.061205	1451.61	12566.84	0	0.003749	0.23149	0	0.228173	1.975332	0	0.080721	4.983907	0	0	0	0	0	0.091895	5.673798	0	0	0	0	0	0	0.358494	68.45379	0	0.013714	0.118725	0
Alameda	2022	HHDT	Aggregate	Aggregate	Natural Ga	401.6658	16371.4	1566.496	1.139671	19.62483	0	0.004214	0.020563	0	0.009	0.02646	0.004405	0.021493	0	0.036	0.06174	3100.389	3919.05	0	3.328006	1.211259	0	0.632035	0.798924	0	0.112814	0.033009	0	0	0	0	0	3.470834	1.254071	0	0	0	0	0	0	10.92575	21.70469	0	0	0	0
Alameda	2022	LDA	Aggregate	Aggregate	Gasoline	655562.9	23671850	3067758	0.041014	0	0.209131	0.001357	0	0.001754	0.002	0.01575	0.001476	0	0.001908	0.008	0.03675	263.6152	0	56.20136	0.002521	0	0.057285	0.004598	0	0.027483	0.009838	0	0.262704	0.111673	0.235745	0.195395	0.199969	0.01435	0	0.287626	0.111673	0.235745	0.195395	0.199969	0.63507	0	2.40731	0.002609	0	0.000556
Alameda	2022	LDA	Aggregate	Aggregate	Diesel	7449.572	272435	34681.3	0.095144	0	0	0.008782	0	0	0.002	0.01575	0.009179	0	0	0.008	0.03675	211.3928	0	0	0.00081	0	0	0.033228	0	0	0.017445	0	0	0	0	0	0	0.01986	0	0	0	0	0	0	0.241474	0	0	0.001998	0	0
Alameda	2022	LDA	Aggregate	Aggregate	Electricity	18845.45	723655.3	92270.33	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2022	LDT1	Aggregate	Aggregate	Gasoline	67404.58	2377619	309278.2	0.092078	0	0.274333	0.00177	0	0.002307	0.002	0.01575	0.001925	0	0.002509	0.008	0.03675	306.3829	0	65.57057	0.004985	0	0.076525	0.007348	0	0.030294	0.02166	0	0.383997	0.194924	0.709945	0.366918	0.413949	0.031589	0	0.420426	0.194924	0.709945	0.366918	0.413949	1.043447	0	2.554171	0.003032	0	0.000649
Alameda	2022	LDT1	Aggregate	Aggregate	Diesel	42.40174	683.455	136.9951	1.125574	0	0	0.160894	0	0	0.002	0.01575	0.168169	0	0	0.008	0.03675	418.6313	0	0	0.009445	0	0	0.065803	0	0	0.203341	0	0	0	0	0	0	0.23149	0	0	0	0	0	0	1.169046	0	0	0.003958	0	0
Alameda	2022	LDT1	Aggregate	Aggregate	Electricity	441.5406	18294.72	2211.187	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2022	LDT2	Aggregate	Aggregate	Gasoline	214905	7709520	998671.2	0.075136	0	0.312762	0.001353	0	0.001698	0.002	0.01575	0.001471	0	0.001846	0.008	0.03675	332.0345	0	72.04411	0.003638	0	0.075085	0.00642	0	0.034464	0.014652	0	0.353054	0.133326	0.457684	0.288683	0.2765	0.021373	0	0.386549	0.133326	0.457684	0.288683	0.2765	0.822247	0	3.007862	0.003286	0	0.000713
Alameda	2022	LDT2	Aggregate	Aggregate	Diesel	1342.824	56264.23	6557.806	0.045436	0	0	0.005174	0	0	0.002	0.01575	0.005408	0	0	0.008	0.03675	282.9641	0	0	0.000735	0	0	0.044478	0	0	0.015827	0	0	0	0	0	0	0.018018	0	0	0	0	0	0	0.137752	0	0	0.002675	0	0
Alameda	2022	LDT2	Aggregate	Aggregate	Electricity	1945.894	62876.38	9794.744	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2022	LHDT1	Aggregate	Aggregate	Gasoline	15745.15	554242.4	234579.2	0.242183	0.038895	0.544696	0.002128	0	0.000383	0.002	0.03276	0.002314	0	0.000416	0.008	0.07644	1011.413	121.5208	19.0752	0.011383	0.123021	0.025415	0.014635	0.003162	0.042363	0.055757	0.445508	0.127981	0.123661	0.88224	0.025047	0.044332	0.08136	0.650084	0.140123	0.123661	0.88224	0.025047	0.044332	1.023333	3.750554	1.769102	0.010009	0.001203	0.000189
Alameda	2022	LHDT1	Aggregate	Aggregate	Diesel	9813.012	383467.2	123435.4	1.719325	2.067179	0	0.022532	0.027044	0	0.003	0.03276	0.02355	0.028267	0	0.012	0.07644	546.7123	133.6475	0	0.00746	0.005098	0	0.085936	0.021008	0	0.160616	0.10976	0	0	0	0	0	0.182851	0.124954	0	0	0	0	0	0	0.684557	0.909745	0	0.005168	0.001263	0
Alameda	2022	LHDT2	Aggregate	Aggregate	Gasoline	2407.031	83770.08	35861.18	0.243443	0.038851	0.540998	0.001947	0	0.000322	0.002	0.03822	0.002117	0	0.00035	0.008	0.08918	1158.615	140.0905	21.69724	0.008776	0.123665	0.024801	0.015468	0.003107	0.041533	0.039685	0.445297	0.124069	0.116207	0.793569	0.022634	0.039769	0.057909	0.649776	0.13584	0.116207	0.793569	0.022634	0.039769	0.728419	3.756817	1.752263	0.011465	0.001386	0.000215
Alameda	2022	LHDT2	Aggregate	Aggregate	Diesel	3673.427	143342.2	46207.09	1.393161	2.040212	0	0.022116	0.027123	0	0.003	0.03822	0.023116	0.02835	0	0.012	0.08918	612.3745	213.5035	0	0.007037	0.005098	0	0.096257	0.03356	0	0.151499	0.10976	0	0	0	0	0	0.172471	0.124954	0	0	0	0	0	0	0.642763	0.909745	0	0.005789	0.002018	0
Alameda	2022	MCY	Aggregate	Aggregate	Gasoline	29570.35	226867	59140.69	1.171073	0	0.273703	0.001911	0	0.003162	0.001	0.00504	0.002042	0	0.003352	0.004	0.01176	215.5819	0	62.20006	0.34547	0	0.261656	0.06712	0	0.015439	2.362179	0	2.007727	0.742754	2.284558	1.006282	1.615198	2.908465	0	2.184458	0.742754	2.284558	1.006282	1.615198	20.54202	0	9.069297	0.002133	0	0.000616
Alameda	2022	MDV	Aggregate	Aggregate	Gasoline	131728.8	4543407	606035.2	0.095818	0	0.391476	0.001451	0	0.00196	0.002	0.01575	0.001578	0	0.002131	0.008	0.03675	399.7146	0	87.84752	0.004552	0	0.092282	0.007686	0	0.037811	0.019118	0	0.46491	0.155296	0.50101	0.344071	0.326191	0.027844	0	0.509011	0.155296	0.50101	0.344071	0.326191	0.934455	0	3.555819	0.003955	0	0.000869
Alameda	2022	MDV	Aggregate	Aggregate	Diesel	2947.784	121177.4	14326.41	0.041499	0	0	0.004427	0	0	0.002	0.01575	0.004628	0	0	0.008	0.03675	367.6938	0	0	0.000523	0	0	0.057796	0	0	0.011251	0	0	0	0	0	0	0.012809	0	0	0	0	0	0	0.19954	0	0	0.003476	0	0
Alameda	2022	MDV	Aggregate	Aggregate	Electricity	891.5759	30124.06	4551.41	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2022	MH	Aggregate	Aggregate	Gasoline	2284.866	22127.24	228.578	0.4023	0	0.334687	0.001622	0	0.000362	0.003	0.05586	0.001765	0	0.000394	0.012	0.13034	1751.697	0	25.92563	0.014805	0	0.03234	0.024891	0	0.03517	0.065035	0	0.136836	0.084861	2.083417	0.034254	0.089687	0.094898	0	0.149818	0.084861	2.083417	0.034254	0.089687	1.666817	0	3.035707	0.017334	0	0.000257
Alameda	2022	MH	Aggregate	Aggregate	Diesel	740.5627	7563.352	74.05627	4.040934	0	0	0.082355	0	0	0.004	0.05586	0.086078	0	0	0.016	0.13034	1013.755	0	0	0.004841	0	0	0.159348	0	0	0.104215	0	0	0	0	0	0	0.118642	0	0	0	0	0	0	0.36657	0	0	0.009584	0	0
Alameda	2022	MHDT	Aggregate	Aggregate	Gasoline	1624.237	87728.64	32497.74	0.48158	0.08854	0.376653	0.00121	0	0.00042	0.003	0.05586	0.001316	0	0.000457	0.012	0.13034	1748.909	538.9732	39.33678	0.01488	0.264813	0.040459	0.023786	0.007557	0.029446	0.072715	1.013529	0.218194	0.085722	0.495973	0.018612	0.032436	0.106105	1.478939	0.238895	0.085722	0.495973	0.018612	0.032436	1.673983	15.12588	4.852177	0.017307	0.005334	0.000389
Alameda	2022	MHDT	Aggregate	Aggregate	Diesel	14395.6	933709.8	145556.5	2.122854	6.854641	1.735852	0.034331	0.013247	0	0.003	0.05586	0.035883	0.013846	0	0.012	0.13034	1034.844	881.2756	0	0.003833	0.004342	0	0.162663	0.138524	0	0.082532	0.093473	0	0	0	0	0	0.093956	0.106412	0	0	0	0	0	0	0.287961	2.569256	0	0.009777	0.008326	0
Alameda	2022	OBUS	Aggregate	Aggregate	Gasoline	583.6695	28951.23	11678.06	0.548147	0.064997	0.326706	0.000955	0	0.000238	0.003	0.05586	0.001039	0	0.000259	0.012	0.13034	1786.027	380.7547	26.90268	0.01637	0.198788	0.03109	0.026658	0.00551	0.025892	0.079178	0.745312	0.161846	0.030705	0.350589	0.018305	0.039172	0.115536	1.087557	0.177202	0.030705	0.350589	0.018305	0.039172	1.761414	5.768861	3.471414	0.017674	0.003768	0.000266
Alameda	2022	OBUS	Aggregate	Aggregate	Diesel	401.2977	30587.37	3897.156	2.698305	15.95143	1.871104	0.0382	0.028495	0	0.003	0.05586	0.039928	0.029783	0	0.012	0.13034	1241.741	2778.085	0	0.004735	0.046305	0	0.195184	0.436676	0	0.101948	0.996944	0	0	0	0	0	0.11606	1.134944	0	0	0	0	0	0	0.353096	13.32964	0	0.011731	0.026246	0
Alameda	2022	SBUS	Aggregate	Aggregate	Gasoline	91.69735	4619.754	366.7894	0.241149	0.92653	0.509732	0.00128	0	0.000578	0.002	0.3192	0.001392	0	0.000629	0.008	0.7448	829.3142	2485.053	46.39218	0.006588	2.492375	0.055552	0.016802	0.094428	0.051433	0.031001	10.64152	0.30815	0.029674	0.196737	0.005637	0.011902	0.045237	15.52808	0.337386	0.029674	0.196737	0.005637	0.011902	0.63574	82.24088	8.107255	0.008207	0.024592	0.000459
Alameda	2022	SBUS	Aggregate	Aggregate	Diesel	297.9675	9556.096	3438.504	5.53775	37.71015	1.140114	0.031768	0.03895	0	0.003	0.3192	0.033204	0.040711	0	0.012	0.7448	1100.454	3598.955	0	0.003568	0.0127	0	0.172976	0.565706	0	0.07681	0.273417	0	0	0	0	0	0.087442	0.311265	0	0	0	0	0	0	0.225461	7.274888	0	0.010397	0.034001	0
Alameda	2022	UBUS	Aggregate	Aggregate	Gasoline	8.853795	523.2122	35.41518	0.281429	0	0.747181	0.001322	0	0.000397	0.002651	0.049706	0.001438	0	0.000432	0.010605	0.115982	1884.367	0	68.67019	0.00545	0	0.088656	0.022986	0	0.064624	0.0181	0	0.386756	0.060443	0.372876	0.010666	0.016223	0.026411	0	0.423449	0.060443	0.372876	0.010666	0.016223	0.340252	0	5.882088	0.018647	0	0.00068
Alameda	2022	UBUS	Aggregate	Aggregate	Diesel	576.8548	68206.34	2307.419	1.608919	0	0	0.006242	0	0	0.007964	0.031534	0.006524	0	0	0.031858	0.073578	1641.502	0	0	0.118223	0	0	0.258021	0	0	0.001696	0	0	0	0	0	0	0.120663	0	0	0	0	0	0	0.194806	0	0	0.015518	0	0
Alameda	2022	UBUS	Aggregate	Aggregate	Electricity	12.02059	1081.877	48.08237	0	0	0	0	0	0	0.008998	0.026472	0	0	0	0.03599	0.061768	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alameda	2022	UBUS	Aggregate	Aggregate	Natural Ga	111.6049	11743.06	446.4196	0.46118	0	0	0.003016	0	0	0.007671	0.032969	0.003153	0	0	0.030685	0.076927	1917.863	0	0	5.939595	0	0	0.390969	0	0	0.084882	0	0	0	0	0	0	6.061811	0	0	0	0	0	0	45.74457	0	0	0	0	0

Project	40517 Albrae Fremont	CalEEMod EMFAC2017 Emission Factors Input											YEAR	2023
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005375	0.003692	0	0	0.008473	0	0	0.067602	0
A	CH4_RUNEX	0.002117	0.004258	0.003218	0.003852	0.008907	0.007174	0	0	0.007281	0.096502	0.343224	0.0044	0.010596
A	CH4_STREX	0.050683	0.069206	0.068881	0.08177	0.015495	0.009961	0	0	0.022857	0.001239	0.260093	0.00583	0.023617
A	CO_IDLEX	0	0	0	0	0.188209	0.148793	0	0	0.575664	0	0	2.774459	0
A	CO_RUNEX	0.566457	0.926183	0.752727	0.825068	0.80591	0.631191	0	0	0.811719	0.161745	20.14792	0.348142	1.089598
A	CO_STREX	2.244836	2.446578	2.868053	3.26323	1.11648	0.722619	0	0	2.543506	0.087846	9.100498	0.847597	2.172814
A	CO2_NBIO_IDLEX	0	0	0	0	8.941807	13.60575	0	0	82.9545	0	0	342.9509	0
A	CO2_NBIO_RUNEX	250.6267	299.2453	321.3975	386.7792	806.4517	797.4313	0	0	1469.455	1585.081	215.4071	997.5632	1537.972
A	CO2_NBIO_STREX	53.03889	64.04255	69.30679	83.08057	12.20749	9.133668	0	0	19.88495	1.008156	61.82542	4.892419	19.02027
A	NOX_IDLEX	0	0	0	0	0.056843	0.089324	0	0	0.315398	0	0	2.878423	0
A	NOX_RUNEX	0.035433	0.079034	0.065322	0.080256	0.755403	0.861453	0	0	1.232426	1.240155	1.167689	3.57191	1.266127
A	NOX_STREX	0.187635	0.251683	0.282571	0.34311	0.34069	0.22324	0	0	0.803598	0.01055	0.273696	1.108368	0.250601
A	PM10_IDLEX	0	0	0	0	0.000792	0.001293	0	0	0.000106	0	0	0.002975	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0	0	0.13034	0.073918	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009677	0.010568	0	0	0.012	0.03169	0.004	0.010599	0.013044
A	PM10_RUNEX	0.001447	0.001824	0.001441	0.001568	0.010381	0.014914	0	0	0.006852	0.006109	0.002069	0.021629	0.021842
A	PM10_STREX	0.001759	0.002328	0.001762	0.001954	0.00026	0.000144	0	0	0.000193	7.65E-06	0.003198	6.87E-05	0.000279
A	PM25_IDLEX	0	0	0	0	0.000758	0.001238	0	0	0.000102	0	0	0.002846	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0	0	0.05586	0.031679	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002419	0.002642	0	0	0.003	0.007923	0.001	0.00265	0.003261
A	PM25_RUNEX	0.001334	0.001679	0.001326	0.001446	0.009882	0.014241	0	0	0.006537	0.005844	0.001935	0.020675	0.020851
A	PM25_STREX	0.001617	0.002141	0.00162	0.001797	0.000239	0.000132	0	0	0.000178	7.04E-06	0.003012	6.31E-05	0.000256
A	ROG_DIURN	0.037912	0.08216	0.056893	0.066109	0.001848	0.001088	0	0	0.001459	5.73E-05	1.606674	0.000328	0.606781
A	ROG_HTSK	0.100381	0.178657	0.125909	0.143082	0.07721	0.047457	0	0	0.023204	0.000831	0.725491	0.003232	0.057755
A	ROG_IDLEX	0	0	0	0	0.021913	0.0174	0	0	0.050284	0	0	0.30559	0
A	ROG_RESTL	0.037431	0.073956	0.060021	0.07042	0.001056	0.000632	0	0	0.000689	3.76E-05	0.995139	0.000156	0.235544
A	ROG_RUNEX	0.008224	0.018307	0.012899	0.016178	0.093704	0.107183	0	0	0.040521	0.001522	2.337556	0.059041	0.066403
A	ROG_RUNLS	0.21721	0.654825	0.439181	0.467694	0.552774	0.315744	0	0	0.267273	0.004954	2.181255	0.021299	1.41122
A	ROG_STREX	0.228651	0.341927	0.320588	0.406968	0.077812	0.049587	0	0	0.118841	0.005386	1.99341	0.032327	0.09814
A	SO2_IDLEX	0	0	0	0	8.68E-05	0.00013	0	0	0.00079	0	0	0.00327	0
A	SO2_RUNEX	9.15E-05	0.002471	0	0.003776	0.007881	0.00772	0	0	0.014254	0.014991	0.002132	0.009553	0.015104
A	SO2_STREX	0	0	0	0.000812	0.000121	9.04E-05	0	0	0.000197	9.98E-06	0.000612	4.84E-05	0.000188
A	TOG_DIURN	0.037912	0.08216	0.056893	0.066109	0.001848	0.001088	0	0	0.001459	5.73E-05	1.606674	0.000328	0.606781
A	TOG_HTSK	0.100381	0.178657	0.125909	0.143082	0.07721	0.047457	0	0	0.023204	0.000831	0.725491	0.003232	0.057755
A	TOG_IDLEX	0	0	0	0	0.030982	0.02378	0	0	0.066167	0	0	0.439175	0
A	TOG_RESTL	0.037431	0.073956	0.060021	0.07042	0.001056	0.000632	0	0	0.000689	3.76E-05	0.995139	0.000156	0.235544
A	TOG_RUNEX	0.011942	0.026693	0.018783	0.023485	0.115818	0.125984	0	0	0.056886	0.098652	2.887399	0.070399	0.088466
A	TOG_RUNLS	0.21721	0.654825	0.439181	0.467694	0.552774	0.315744	0	0	0.267273	0.004954	2.181255	0.021299	1.41122
A	TOG_STREX	0.250344	0.374366	0.351003	0.445575	0.085194	0.054291	0	0	0.130116	0.005897	2.169162	0.035394	0.107451

PROJECT	40517 Albrae Fremont			CalEEMod EMFAC2017 Fleet Mix Input								YEAR	2023
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.600698	0.058281	0.188869	0.113935	0.022632	0.005568	0	0	0.001427	0.001652	0.005859	0.000356	0.000722

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2023**	**1.0007**	**1.0006**	**1.0007**	**1.0032**	**1.0027**	**1.0126**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Alameda
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Year	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PMI	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNI	N2O_IDLEX	N2O_STRE	ROG_RUNI	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNI	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Alameda	2023	HHDT	Aggregate	Aggregate	Gasoline	8.469319	953.4549	169.4541	3.205989	0	0.165579	0.000656	0	0.000252	0.005	0.02646	0.000713	0	0.000274	0.02	0.06174	2095.284	0	46.15712	0.080133	0	0.00022	0.135349	0	0.005692	0.369049	0	0.001149	0.075504	0.388214	0.019676	0.029579	0.538516	0	0.001258	0.075504	0.388214	0.019676	0.029579	32.02194	0	4.160862	0.020735	0	0.000457
Alameda	2023	HHDT	Aggregate	Aggregate	Diesel	15086.83	1974725	164037	2.590408	60.05913	2.30368	0.024253	0.024804	0	0.008924	0.026238	0.02535	0.025926	0	0.035698	0.061221	1379.616	12021.41	0	0.00108	0.229936	0	0.216856	1.889598	0	0.023253	4.950467	0	0	0	0	0	0.026472	5.635729	0	0	0	0	0	0	0.233001	72.67191	0	0.013034	0.113572	0
Alameda	2023	HHDT	Aggregate	Aggregate	Natural Gas	422.605	17225.26	1648.16	1.030113	19.38259	0	0.003999	0.018604	0	0.009	0.026646	0.004179	0.019445	0	0.036	0.06174	3072.662	3880.308	0	3.289682	1.203995	0	0.626382	0.791026	0	0.103666	0.030823	0	0	0	0	0	3.421923	1.244285	0	0	0	0	0	0	10.96409	21.74497	0	0	0	0
Alameda	2023	LDA	Aggregate	Aggregate	Gasoline	667309.8	23901996	3124388	0.036103	0	0.195764	0.001302	0	0.001688	0.002	0.01575	0.001416	0	0.001836	0.008	0.03675	256.4196	0	54.68631	0.002206	0	0.052915	0.004252	0	0.026453	0.008414	0	0.238557	0.104581	0.226643	0.182738	0.184767	0.012275	0	0.261189	0.104581	0.226643	0.182738	0.184767	0.588097	0	2.337415	0.002537	0	0.000541
Alameda	2023	LDA	Aggregate	Aggregate	Diesel	7729.403	279310.6	36003.35	0.079154	0	0	0.007514	0	0	0.002	0.01575	0.007854	0	0	0.008	0.03675	206.0483	0	0	0.000717	0	0	0.032388	0	0	0.015437	0	0	0	0	0	0	0.017574	0	0	0	0	0	0	0.228546	0	0	0.001948	0	0
Alameda	2023	LDA	Aggregate	Aggregate	Electricity	20824.63	813801.8	101632.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2023	LDT1	Aggregate	Aggregate	Gasoline	68479.58	2399722	314654.6	0.079537	0	0.253932	0.001651	0	0.002162	0.002	0.01575	0.001796	0	0.002351	0.008	0.03675	298.5369	0	63.85533	0.004301	0	0.069873	0.006612	0	0.029054	0.018438	0	0.344982	0.180225	0.660741	0.342854	0.380803	0.0269	0	0.377711	0.180225	0.660741	0.342854	0.380803	0.933166	0	2.463511	0.002954	0	0.000632
Alameda	2023	LDT1	Aggregate	Aggregate	Diesel	39.15707	635.7981	126.2317	1.044114	0	0	0.149427	0	0	0.002	0.01575	0.156183	0	0	0.008	0.03675	412.47	0	0	0.00879	0	0	0.064835	0	0	0.189233	0	0	0	0	0	0	0.21543	0	0	0	0	0	0	1.090371	0	0	0.003899	0	0
Alameda	2023	LDT1	Aggregate	Aggregate	Electricity	580.0443	24735.92	2906.946	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2023	LDT2	Aggregate	Aggregate	Gasoline	217236.5	7721211	1009317	0.066116	0	0.287807	0.001308	0	0.001651	0.002	0.01575	0.001423	0	0.001795	0.008	0.03675	320.927	0	69.76163	0.00327	0	0.070206	0.00586	0	0.03273	0.013001	0	0.326529	0.128196	0.447365	0.284021	0.269098	0.018969	0	0.357508	0.128196	0.447365	0.284021	0.269098	0.763016	0	2.915378	0.003176	0	0.00069
Alameda	2023	LDT2	Aggregate	Aggregate	Diesel	1458.614	59717.01	7098.88	0.04187	0	0	0.004858	0	0	0.002	0.01575	0.005077	0	0	0.008	0.03675	275.3146	0	0	0.000715	0	0	0.043276	0	0	0.015386	0	0	0	0	0	0	0.017516	0	0	0	0	0	0	0.137905	0	0	0.002603	0	0
Alameda	2023	LDT2	Aggregate	Aggregate	Electricity	2454.719	77925.27	12325.87	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2023	LHDT1	Aggregate	Aggregate	Gasoline	15630.71	546843.8	232874.3	0.218131	0.037928	0.528069	0.002104	0	0.000371	0.002	0.03276	0.002288	0	0.000404	0.008	0.07644	1000.131	120.5648	18.92157	0.010124	0.120797	0.024018	0.01333	0.003131	0.041449	0.049083	0.434533	0.120608	0.119676	0.856798	0.024397	0.042685	0.071622	0.634069	0.13205	0.119676	0.856798	0.024397	0.042685	0.909043	3.753615	1.730541	0.009897	0.001193	0.000187
Alameda	2023	LHDT1	Aggregate	Aggregate	Diesel	10182.28	394883.8	128080.3	1.49943	1.956817	0	0.020655	0.026877	0	0.003	0.03276	0.021589	0.028092	0	0.012	0.07644	538.2402	131.903	0	0.007222	0.005098	0	0.084604	0.020733	0	0.155496	0.10976	0	0	0	0	0	0.177022	0.124954	0	0	0	0	0	0	0.663089	0.909745	0	0.005088	0.001247	0
Alameda	2023	LHDT2	Aggregate	Aggregate	Gasoline	2404.163	82971.63	35818.45	0.218492	0.037884	0.525679	0.001921	0	0.000312	0.002	0.03822	0.00209	0	0.000339	0.008	0.08918	1145.871	138.9951	21.50769	0.007733	0.121343	0.023455	0.014085	0.003074	0.040715	0.034506	0.434322	0.116765	0.111751	0.743503	0.022163	0.038153	0.05035	0.633762	0.127843	0.111751	0.743503	0.022163	0.038153	0.635977	3.760246	1.701602	0.011339	0.001375	0.000213
Alameda	2023	LHDT2	Aggregate	Aggregate	Diesel	3857.759	148727.7	48525.76	1.220145	1.929327	0	0.021114	0.027057	0	0.003	0.03822	0.022069	0.02828	0	0.012	0.08918	603.0452	210.8476	0	0.006862	0.005098	0	0.09479	0.033142	0	0.147727	0.10976	0	0	0	0	0	0.168178	0.124954	0	0	0	0	0	0	0.62852	0.909745	0	0.005701	0.001993	0
Alameda	2023	MCY	Aggregate	Aggregate	Gasoline	30069.51	228308.3	60139.01	1.167689	0	0.273696	0.001935	0	0.003012	0.001	0.00504	0.002069	0	0.003198	0.004	0.01176	215.4071	0	61.82542	0.343224	0	0.260093	0.066972	0	0.015448	2.337556	0	1.99341	0.725491	2.181255	0.995139	1.606674	2.887399	0	2.169162	0.725491	2.181255	0.995139	1.606674	20.14792	0	9.100498	0.002132	0	0.000612
Alameda	2023	MDV	Aggregate	Aggregate	Gasoline	133207.4	4570507	613410.7	0.082163	0	0.35512	0.001381	0	0.001861	0.002	0.01575	0.001502	0	0.002024	0.008	0.03675	386.1684	0	84.97803	0.003982	0	0.084692	0.006857	0	0.035564	0.016475	0	0.421213	0.148054	0.484113	0.335623	0.314979	0.024008	0	0.461171	0.148054	0.484113	0.335623	0.314979	0.848047	0	3.370714	0.003821	0	0.000841
Alameda	2023	MDV	Aggregate	Aggregate	Diesel	3191.895	128373.5	15460.71	0.036519	0	0	0.004044	0	0	0.002	0.01575	0.004227	0	0	0.008	0.03675	357.2869	0	0	0.000487	0	0	0.056161	0	0	0.010486	0	0	0	0	0	0	0.011938	0	0	0	0	0	0	0.194737	0	0	0.003378	0	0
Alameda	2023	MDV	Aggregate	Aggregate	Electricity	1268.235	41984.7	6454.381	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0.004888	0	0.004021	0.014405	0	0	0	0	0	0
Alameda	2023	MH	Aggregate	Aggregate	Gasoline	2265.263	22215.67	226.6169	0.350204	0	0.335985	0.001543	0	0.000344	0.003	0.05586	0.001678	0	0.000374	0.012	0.13034	1727.268	0	25.50079	0.012684	0	0.031663	0.022704	0	0.035966	0.054288	0	0.131578	0.077433	1.892045	0.031592	0.081385	0.079217	0	0.144061	0.077433	1.892045	0.031592	0.081385	1.350679	0	2.913127	0.017093	0	0.000252
Alameda	2023	MH	Aggregate	Aggregate	Diesel	772.1207	7841.796	77.21207	3.860922	0	0	0.075551	0	0	0.004	0.05586	0.078967	0	0	0.016	0.13034	1001.7	0	0	0.004678	0	0	0.157453	0	0	0.100725	0	0	0	0	0	0	0.114669	0	0	0	0	0	0	0.349959	0	0	0.00947	0	0
Alameda	2023	MHDT	Aggregate	Aggregate	Gasoline	1643.309	88761.49	32879.32	0.402393	0.088699	0.368613	0.001202	0	0.000406	0.003	0.05586	0.001307	0	0.000441	0.012	0.13034	1725.059	533.6431	38.56287	0.012337	0.267794	0.039092	0.020728	0.007743	0.029606	0.059563	1.015893	0.208079	0.081315	0.463963	0.017691	0.030215	0.086915	1.482389	0.22782	0.081315	0.463963	0.017691	0.030215	1.36167	15.15333	4.590976	0.017071	0.005281	0.000382
Alameda	2023	MHDT	Aggregate	Aggregate	Diesel	14483.95	961160.6	145737.2	1.522027	5.28445	2.138998	0.006993	0.00419	0	0.003	0.05586	0.007309	0.004379	0	0.012	0.13034	997.9643	851.0236	0	0.000502	0.003378	0	0.156866	0.133769	0	0.010811	0.072721	0	0	0	0	0	0.012308	0.082788	0	0	0	0	0	0	0.110325	2.664982	0	0.009428	0.00804	0
Alameda	2023	OBUS	Aggregate	Aggregate	Gasoline	573.9484	27813.7	11483.56	0.500759	0.065027	0.324991	0.000981	0	0.000238	0.003	0.05586	0.001067	0	0.000259	0.012	0.13034	1765.701	378.1583	26.64677	0.014846	0.199188	0.03063	0.024714	0.005552	0.025912	0.071571	0.745756	0.159253	0.031095	0.358159	0.01846	0.039129	0.104436	1.088205	0.174362	0.031095	0.358159	0.01846	0.039129	1.56828	5.771527	3.408417	0.017473	0.003742	0.000264
Alameda	2023	OBUS	Aggregate	Aggregate	Diesel	403.9197	31550.25	3904.948	1.877441	11.9236	2.211073	0.011435	0.003868	0	0.003	0.05586	0.011952	0.004043	0	0.012	0.13034	1208.295	2623.052	0	0.000611	0.039761	0	0.189927	0.412307	0	0.013148	0.856034	0	0	0	0	0	0.014968	0.974529	0	0	0	0	0	0	0.144759	13.73056	0	0.011415	0.024781	0
Alameda	2023	SBUS	Aggregate	Aggregate	Gasoline	104.0366	5187.478	416.1466	0.226924	0.92653	0.504985	0.001305	0	0.00059	0.002	0.3192	0.00142	0	0.000642	0.008	0.7448	820.439	2460.601	45.73726	0.006051	2.491428	0.054499	0.016156	0.095009	0.051108	0.028351	10.64152	0.302216	0.030214	0.199118	0.005831	0.012249	0.04137	15.52808	0.330888	0.030214	0.199118	0.005831	0.012249	0.577232	82.24088	7.923841	0.008119	0.02435	0.000453
Alameda	2023	SBUS	Aggregate	Aggregate	Diesel	301.0643	9625.658	3474.24	5.374596	36.87513	1.180642	0.031114	0.036778	0	0.003	0.3192	0.03252	0.038441	0	0.012	0.7448	1093.019	3581.358	0	0.003511	0.012613	0	0.171807	0.56294	0	0.07558	0.271551	0	0	0	0	0	0.086043	0.30914	0	0	0	0	0	0	0.224681	7.432484	0	0.010326	0.033835	0
Alameda	2023	UBUS	Aggregate	Aggregate	Gasoline	8.85782	523.45	35.43128	0.240354	0	0.703059	0.001593	0	0.000469	0.002651	0.049706	0.001732	0	0.00051	0.010605	0.115982	1827.56	0	67.18497	0.005414	0	0.082542	0.020443	0	0.06261	0.017879	0	0.358958	0.05535	0.330159	0.010032	0.015285	0.026088	0	0.393014	0.05535	0.330159	0.010032	0.015285	0.307446	0	5.85416	0.018085	0	0.000665
Alameda	2023	UBUS	Aggregate	Aggregate	Diesel	569.4196	67115.93	2277.678	1.267944	0	0	0.005972	0	0	0.007946	0.031622	0.006242	0	0	0	0.098768	0	0	0	0.098768	0	0	0.252872	0	0	0.001419	0	0	0	0	0	0	0.100808	0	0	0	0	0	0	0.163216	0	0	0.015208	0	0
Alameda	2023	UBUS	Aggregate	Aggregate	Electricity	12.02059	1081.877	48.08237	0	0	0	0	0	0	0.008998	0.026472	0	0	0	0.03599	0.061768	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alameda	2023	UBUS	Aggregate	Aggregate	Natural Gas	119.3585	12870.3	477.4341	0.465388	0	0	0.003041	0	0	0.007791	0.032381	0.003179	0	0	0.031165	0.075555	1932.568	0	0	6.010405	0	0	0.393967	0	0	0.085893	0	0	0	0	0	0	6.134076	0	0	0	0	0	0	46.35102	0	0	0	0	0

Project	40517 Albrae Fremont (Retail)				CalEEMod EMFAC2017 Emission Factors Input						YEAR	2023	
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005375	0.003692	0.002738	0.02398381	0.008473	0	0	0.067602	0
A	CH4_RUNEX	0.00211732	0.004258	0.003218	0.003852	0.008907	0.007174	0.001503	0.029542244	0.007281	0.096502	0.343224	0.0044	0.010596
A	CH4_STREX	0.050682757	0.069206	0.068881	0.08177	0.015495	0.009961	0.007196	2.24586E-07	0.022857	0.001239	0.260093	0.00583	0.023617
A	CO_IDLEX	0	0	0	0	0.188209	0.148793	0.355516	6.665948379	0.575664	0	0	2.774459	0
A	CO_RUNEX	0.566456995	0.926183	0.752727	0.825068	0.80591	0.631191	0.216115	0.340961841	0.811719	0.161745	20.14792	0.348142	1.089598
A	CO_STREX	2.244836145	2.446578	2.868053	3.26323	1.11648	0.722619	0.845097	0.004251165	2.543506	0.087846	9.100498	0.847597	2.172814
A	CO2_NBIO_IDLEX	0	0	0	0	8.941807	13.60575	73.91886	1103.404965	82.9545	0	0	342.9509	0
A	CO2_NBIO_RUNEX	250.6266786	299.2453	321.3975	386.7792	806.4517	797.4313	1059.434	1394.591519	1469.455	1585.081	215.4071	997.5632	1537.972
A	CO2_NBIO_STREX	53.03888831	64.04255	69.30679	83.08057	12.20749	9.133668	7.098567	0.04715888	19.88495	1.008156	61.82542	4.892419	19.02027
A	NOX_IDLEX	0	0	0	0	0.056843	0.089324	0.42933	5.512618213	0.315398	0	0	2.878423	0
A	NOX_RUNEX	0.035433273	0.079034	0.065322	0.080256	0.755403	0.861453	1.427372	2.577216562	1.232426	1.240155	1.167689	3.57191	1.266127
A	NOX_STREX	0.187635359	0.251683	0.282571	0.34311	0.34069	0.22324	1.81311	2.278603245	0.803598	0.01055	0.273696	1.108368	0.250601
A	PM10_IDLEX	0	0	0	0	0.000792	0.001293	0.000355	0.002407843	0.000106	0	0	0.002975	0
A	PM10_PMBW	0.036750011	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06122595	0.13034	0.073918	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008000002	0.008	0.008	0.008	0.009677	0.010568	0.012	0.035692608	0.012	0.03169	0.004	0.010599	0.013044
A	PM10_RUNEX	0.001446769	0.001824	0.001441	0.001568	0.010381	0.014914	0.006802	0.025154892	0.006852	0.006109	0.002069	0.021629	0.021842
A	PM10_STREX	0.001758846	0.002328	0.001762	0.001954	0.00026	0.000144	8.12E-05	2.80141E-07	0.000193	7.65E-06	0.003198	6.87E-05	0.000279
A	PM25_IDLEX	0	0	0	0	0.000758	0.001238	0.00034	0.002303681	0.000102	0	0	0.002846	0
A	PM25_PMBW	0.015750005	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026239693	0.05586	0.031679	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002000001	0.002	0.002	0.002	0.002419	0.002642	0.003	0.008923152	0.003	0.007923	0.001	0.00265	0.003261
A	PM25_RUNEX	0.001333543	0.001679	0.001326	0.001446	0.009882	0.014241	0.006503	0.02406669	0.006537	0.005844	0.001935	0.020675	0.020851
A	PM25_STREX	0.00161723	0.002141	0.00162	0.001797	0.000239	0.000132	7.47E-05	2.57579E-07	0.000178	7.04E-06	0.003012	6.31E-05	0.000256
A	ROG_DIURN	0.03791242	0.08216	0.056893	0.066109	0.001848	0.001088	0.000278	1.51045E-06	0.001459	5.73E-05	1.606674	0.000328	0.606781
A	ROG_HTSK	0.100381105	0.178657	0.125909	0.143082	0.07721	0.047457	0.014968	7.71423E-05	0.023204	0.000831	0.725491	0.003232	0.057755
A	ROG_IDLEX	0	0	0	0	0.021913	0.0174	0.015243	0.45039374	0.050284	0	0	0.30559	0
A	ROG_RESTL	0.03743075	0.073956	0.060021	0.07042	0.001056	0.000632	0.000163	1.00477E-06	0.000689	3.76E-05	0.995139	0.000156	0.235544
A	ROG_RUNEX	0.008224497	0.018307	0.012899	0.016178	0.093704	0.107183	0.014933	0.024113692	0.040521	0.001522	2.337556	0.059041	0.066403
A	ROG_RUNLS	0.217210354	0.654825	0.439181	0.467694	0.552774	0.315744	0.085405	0.000396639	0.267273	0.004954	2.181255	0.021299	1.41122
A	ROG_STREX	0.228651292	0.341927	0.320588	0.406968	0.077812	0.049587	0.038303	1.17378E-06	0.118841	0.005386	1.99341	0.032327	0.09814
A	SO2_IDLEX	0	0	0	0	8.68E-05	0.00013	0.000701	0.010331014	0.00079	0	0	0.00327	0
A	SO2_RUNEX	9.14601E-05	0.002471	0.010074	0.003776	0.007881	0.00772	0.010074	0.012924952	0.014254	0.014991	0.002132	0.009553	0.015104
A	SO2_STREX	0	0	7.02E-05	0.000812	0.000121	9.04E-05	7.02E-05	4.66675E-07	0.000197	9.98E-06	0.000612	4.84E-05	0.000188
A	TOG_DIURN	0.03791242	0.08216	0.056893	0.066109	0.001848	0.001088	0.000278	1.51045E-06	0.001459	5.73E-05	1.606674	0.000328	0.606781
A	TOG_HTSK	0.100381105	0.178657	0.125909	0.143082	0.07721	0.047457	0.014968	7.71423E-05	0.023204	0.000831	0.725491	0.003232	0.057755
A	TOG_IDLEX	0	0	0	0	0.030982	0.02378	0.020352	0.515820072	0.066167	0	0	0.439175	0
A	TOG_RESTL	0.03743075	0.073956	0.060021	0.07042	0.001056	0.000632	0.000163	1.00477E-06	0.000689	3.76E-05	0.995139	0.000156	0.235544
A	TOG_RUNEX	0.011942499	0.026693	0.018783	0.023485	0.115818	0.125984	0.018615	0.056064893	0.056886	0.098652	2.887399	0.070399	0.088466
A	TOG_RUNLS	0.217210354	0.654825	0.439181	0.467694	0.552774	0.315744	0.085405	0.000396639	0.267273	0.004954	2.181255	0.021299	1.41122
A	TOG_STREX	0.250343674	0.374366	0.351003	0.445575	0.085194	0.054291	0.041937	1.28514E-06	0.130116	0.005897	2.169162	0.035394	0.107451

PROJECT	40517 Albrae Fremont (Retail)	CalEEMod EMFAC2017 Fleet Mix Input	YEAR	2023

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.559764	0.05431	0.175999	0.106171	0.02109	0.005189	0.023513	0.044631	0.001329	0.001539	0.00546	0.000332	0.000673

Project	40517 Albrae Fremont	CalEEMod EMFAC2017 Emission Factors Input										YEAR	2030
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004324	0.002824	0	0	0.008017	0	0	0.110736	0
A	CH4_RUNEX	0.001027	0.001708	0.001691	0.001741	0.005399	0.005352	0	0	0.003149	1.795282	0.33397	0.003214	0.004901
A	CH4_STREX	0.030538	0.038141	0.043362	0.04596	0.009608	0.005713	0	0	0.018698	0.000894	0.251707	0.009151	0.019865
A	CO_IDLEX	0	0	0	0	0.179353	0.137776	0	0	0.661092	0	0	4.280357	0
A	CO_RUNEX	0.407544	0.527327	0.533019	0.528283	0.489738	0.487663	0	0	0.35513	13.55236	18.54269	0.265206	0.299173
A	CO_STREX	1.779709	1.915978	2.345996	2.394732	0.920274	0.534185	0	0	1.99314	0.072863	9.288609	1.290045	1.662009
A	CO2_NBIO_IDLEX	0	0	0	0	8.286422	12.83032	0	0	94.11594	0	0	341.3771	0
A	CO2_NBIO_RUNEX	217.7099	262.949	270.1405	324.2742	706.9931	694.8441	0	0	1255.927	1613.538	214.7024	889.2402	1350.877
A	CO2_NBIO_STREX	45.89175	55.96335	58.02407	68.5381	10.39567	7.192965	0	0	16.27054	0.727265	59.83217	7.462195	15.77116
A	NOX_IDLEX	0	0	0	0	0.045735	0.070485	0	0	0.409945	0	0	2.073495	0
A	NOX_RUNEX	0.020157	0.033738	0.032708	0.034121	0.321958	0.387852	0	0	1.265071	0.684876	1.153924	1.944809	1.002388
A	NOX_STREX	0.13215	0.161281	0.174552	0.187837	0.241486	0.150252	0	0	0.954469	0.007214	0.272678	1.3698	0.239985
A	PM10_IDLEX	0	0	0	0	0.00089	0.001427	0	0	0.000138	0	0	0.001456	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0	0	0.13034	0.074176	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009866	0.01076	0	0	0.012	0.031607	0.004	0.010074	0.013157
A	PM10_RUNEX	0.000972	0.001112	0.001055	0.001053	0.007185	0.013485	0	0	0.007645	0.004989	0.002227	0.013103	0.014599
A	PM10_STREX	0.001301	0.001509	0.001352	0.001364	0.000214	0.000111	0	0	0.000182	9.14E-06	0.002871	0.000122	0.000216
A	PM25_IDLEX	0	0	0	0	0.000852	0.001365	0	0	0.000132	0	0	0.001393	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0	0	0.05586	0.03179	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002466	0.00269	0	0	0.003	0.007902	0.001	0.002518	0.003289
A	PM25_RUNEX	0.000894	0.001022	0.000972	0.000971	0.006829	0.012877	0	0	0.007296	0.004773	0.002078	0.012509	0.01393
A	PM25_STREX	0.001196	0.001387	0.001243	0.001254	0.000197	0.000102	0	0	0.000167	8.4E-06	0.002687	0.000112	0.000198
A	ROG_DIURN	0.024505	0.046877	0.045289	0.053293	0.001342	0.00069	0	0	0.001328	3.52E-05	1.560998	0.000801	0.298033
A	ROG_HTSK	0.068073	0.105171	0.092197	0.102405	0.058803	0.029286	0	0	0.022031	0.000481	0.637848	0.007791	0.027026
A	ROG_IDLEX	0	0	0	0	0.01787	0.014379	0	0	0.054035	0	0	0.490124	0
A	ROG_RESTL	0.025256	0.046094	0.049697	0.058428	0.000823	0.000452	0	0	0.000658	2.23E-05	0.933217	0.0004	0.132704
A	ROG_RUNEX	0.00353	0.006625	0.006314	0.006696	0.073252	0.09609	0	0	0.020632	0.025769	2.239465	0.036942	0.036952
A	ROG_RUNLS	0.179259	0.405065	0.349315	0.356736	0.483561	0.175556	0	0	0.269781	0.002843	1.553222	0.054177	0.509813
A	ROG_STREX	0.12702	0.170034	0.189777	0.210407	0.046527	0.027097	0	0	0.09594	0.00382	1.916254	0.050723	0.075125
A	SO2_IDLEX	0	0	0	0	8.03E-05	0.000123	0	0	0.000894	0	0	0.00327	0
A	SO2_RUNEX	9.09E-05	0.002479	0	0.002994	0.006897	0.006711	0	0	0.012133	0.009986	0.002125	0.008564	0.013252
A	SO2_STREX	0	0	0	0.000634	0.000103	7.12E-05	0	0	0.000161	7.2E-06	0.000592	7.38E-05	0.000156
A	TOG_DIURN	0.024505	0.046877	0.045289	0.053293	0.001342	0.00069	0	0	0.001328	3.52E-05	1.560998	0.000801	0.298033
A	TOG_HTSK	0.068073	0.105171	0.092197	0.102405	0.058803	0.029286	0	0	0.022031	0.000481	0.637848	0.007791	0.027026
A	TOG_IDLEX	0	0	0	0	0.024936	0.019194	0	0	0.06949	0	0	0.709124	0
A	TOG_RESTL	0.025256	0.046094	0.049697	0.058428	0.000823	0.000452	0	0	0.000658	2.23E-05	0.933217	0.0004	0.132704
A	TOG_RUNEX	0.005126	0.009666	0.009172	0.009702	0.086823	0.110734	0	0	0.027522	1.832353	2.801451	0.04482	0.046019
A	TOG_RUNLS	0.179259	0.405065	0.349315	0.356736	0.483561	0.175556	0	0	0.269781	0.002843	1.553222	0.054177	0.509813
A	TOG_STREX	0.139071	0.186166	0.207782	0.230369	0.050941	0.029667	0	0	0.105042	0.004182	2.086656	0.055536	0.082253

PROJECT	40517 Albrae Fremont			CalEEMod EMFAC2017 Fleet Mix Input								YEAR	2030
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.60545	0.058671	0.183591	0.114426	0.022199	0.005819	0	0	0.001365	0.001842	0.005485	0.000425	0.000727

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: **2030**	**1.0047**	**1.0051**	**1.0037**	**1.0142**	**1.0156**	**1.0702**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors

Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
HHDT	GAS	0	0	0	0	0	0
HHDT	DSL	0	0	0	0	0	0
HHDT	NG	0	0	0	0	0	0
		0		0		0	
LDA	GAS	749847.849	0.201184347	25193384.64	0.9362289	3506363.806	0.940758
LDA	DSL	9011.33688	0.002417744	308397.6735	0.0114606	42428.72131	0.011384
LDA	ELEC	37093.2464	0.009952126	1407644.84	0.0523105	178375.4244	0.047858
		795952.432		26909427.15		3727167.952	
LDT1	GAS	76651.665	0.211795077	2536055.089	0.9725469	353221.7153	0.975982
LDT1	DSL	9.86944195	2.72701E-05	332.4496819	0.0001275	45.5855273	0.000126
LDT1	ELEC	1759.96646	0.004862937	71255.30773	0.0273256	8646.989384	0.023892
		78421.5009		2607642.846		361914.2902	
LDT2	GAS	236276.941	0.207710349	7897774.211	0.967894	1094615.129	0.962273
LDT2	DSL	2112.23274	0.001856857	75679.04001	0.0092747	10064.31631	0.008848
LDT2	ELEC	6705.43863	0.005894731	186298.1531	0.0228314	32851.46118	0.02888
		245094.613		8159751.404		1137530.906	
LHDT1	GAS	15568.5057	0.03979265	526419.8109	0.5335405	231947.5383	0.592851
LHDT1	DSL	12663.683	0.032368007	460234.1438	0.4664595	159293.2008	0.407149
		28232.1887	0.072160657	986653.9548		391240.739	
LHDT2	GAS	2417.30316	0.024260285	80206.66932	0.3101069	36014.21537	0.361442
LHDT2	DSL	5058.22666	0.050764846	178435.3729	0.6898931	63626.12817	0.638558
		7475.52983	0.075025131	258642.0423		99640.34354	
MCY	GAS	33483.5316	1	243796.974	1	68862.74135	1
MDV	GAS	146200.35	0.203347885	4795454.752	0.9429306	674959.0304	0.93879
MDV	DSL	4597.20658	0.006394186	162725.2451	0.0319967	21856.92517	0.0304
MDV	ELEC	4486.44859	0.006240134	127511.9849	0.0250727	22150.70602	0.030809
		155284.005		5085691.982		718966.6616	
MH	GAS	2262.62161	6.983587252	22982.82679	0.7108438	226.3526663	0.698638
MH	DSL	976.386483	3.013619313	9348.926824	0.2891562	97.63864831	0.301362
		3239.0081		32331.75362		323.9913146	
MHDT	GAS	0	0	0	0	0	0
MHDT	DSL	0	0	0	0	0	0
		0		0		0	
OBUS	GAS	526.639185	0.033256	23054.75554	0.3799222	10536.99681	0.665386
OBUS	DSL	549.470016	0.034697712	37628.07416	0.6200778	5298.918234	0.334614
		1076.1092		60682.8297		15835.91504	
SBUS	GAS	193.351326	0.044281334	9094.986742	0.4815547	773.4053023	0.177125
SBUS	DSL	311.357665	0.071307154	9791.730635	0.5184453	3593.024291	0.822875
		504.708991		18886.71738		4366.429594	
UBUS	GAS	8.88598932	0.00312046	525.1147161	0.0064155	35.54395728	0.012482
UBUS	DSL	500.710687	0.175832734	57922.00815	0.7076515	2002.842746	0.703331
UBUS	NG	202.31668	0.071046806	23403.91104	0.285933	809.2667184	0.284187
		711.913355		81851.03391		2847.653422	

Project	40517 Albrae Fremont (Retail)				CalEEMod EMFAC2017 Emission Factors Input						YEAR	2030	
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004324	0.002824	0.00247	0.023396629	0.008017	0	0	0.110736	0
A	CH4_RUNEX	0.001026584	0.001708	0.001691	0.001741	0.005399	0.005352	0.000812	0.029826524	0.003149	1.795282	0.33397	0.003214	0.004901
A	CH4_STREX	0.030538452	0.038141	0.043362	0.04596	0.009608	0.005713	0.005312	1.92114E-07	0.018698	0.000894	0.251707	0.009151	0.019865
A	CO_IDLEX	0	0	0	0	0.179353	0.137776	0.349403	6.484826592	0.661092	0	0	4.280357	0
A	CO_RUNEX	0.407544451	0.527327	0.533019	0.528283	0.489738	0.487663	0.137604	0.348873083	0.35513	13.55236	18.54269	0.265206	0.299173
A	CO_STREX	1.779708861	1.915978	2.345996	2.394732	0.920274	0.534185	0.549552	0.003542079	1.99314	0.072863	9.288609	1.290045	1.662009
A	CO2_NBIO_IDLEX	0	0	0	0	8.286422	12.83032	66.88139	949.2762301	94.11594	0	0	341.3771	0
A	CO2_NBIO_RUNEX	217.7098847	262.949	270.1405	324.2742	706.9931	694.8441	945.8532	1197.919724	1255.927	1613.538	214.7024	889.2402	1350.877
A	CO2_NBIO_STREX	45.8917492	55.96335	58.02407	68.5381	10.39567	7.192965	5.368499	0.032167888	16.27054	0.727265	59.83217	7.462195	15.77116
A	NOX_IDLEX	0	0	0	0	0.045735	0.070485	0.358984	5.270629417	0.409945	0	0	2.073495	0
A	NOX_RUNEX	0.020157233	0.033738	0.032708	0.034121	0.321958	0.387852	1.464166	2.46244868	1.265071	0.684876	1.153924	1.944809	1.002388
A	NOX_STREX	0.132149745	0.161281	0.174552	0.187837	0.241486	0.150252	1.875837	2.283797485	0.954469	0.007214	0.272678	1.3698	0.239985
A	PM10_IDLEX	0	0	0	0	0.00089	0.001427	0.000151	0.002049445	0.000138	0	0	0.001456	0
A	PM10_PMBW	0.036750011	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06131938	0.13034	0.074176	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008000002	0.008	0.008	0.008	0.009866	0.01076	0.012	0.035748526	0.012	0.031607	0.004	0.010074	0.013157
A	PM10_RUNEX	0.000971812	0.001112	0.001055	0.001053	0.007185	0.013485	0.007073	0.024080067	0.007645	0.004989	0.002227	0.013103	0.014599
A	PM10_STREX	0.001300517	0.001509	0.001352	0.001364	0.000214	0.000111	6.56E-05	2.496E-07	0.000182	9.14E-06	0.002871	0.000122	0.000216
A	PM25_IDLEX	0	0	0	0	0.000852	0.001365	0.000145	0.001960787	0.000132	0	0	0.001393	0
A	PM25_PMBW	0.015750005	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026279734	0.05586	0.03179	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002000001	0.002	0.002	0.002	0.002466	0.00269	0.003	0.008937131	0.003	0.007902	0.001	0.002518	0.003289
A	PM25_RUNEX	0.000894478	0.001022	0.000972	0.000971	0.006829	0.012877	0.006763	0.023038359	0.007296	0.004773	0.002078	0.012509	0.01393
A	PM25_STREX	0.001195778	0.001387	0.001243	0.001254	0.000197	0.000102	6.03E-05	2.29498E-07	0.000167	8.4E-06	0.002687	0.000112	0.000198
A	ROG_DIURN	0.024504648	0.046877	0.045289	0.053293	0.001342	0.00069	0.000178	8.8987E-07	0.001328	3.52E-05	1.560998	0.000801	0.298033
A	ROG_HTSK	0.068073089	0.105171	0.092197	0.102405	0.058803	0.029286	0.00969	4.43399E-05	0.022031	0.000481	0.637848	0.007791	0.027026
A	ROG_IDLEX	0	0	0	0	0.01787	0.014379	0.013754	0.436208985	0.054035	0	0	0.490124	0
A	ROG_RESTL	0.025255995	0.046094	0.049697	0.058428	0.000823	0.000452	0.000117	6.24747E-07	0.000658	2.23E-05	0.933217	0.0004	0.132704
A	ROG_RUNEX	0.003530117	0.006625	0.006314	0.006696	0.073252	0.09609	0.011127	0.023071507	0.020632	0.025769	2.239465	0.036942	0.036952
A	ROG_RUNLS	0.179258582	0.405065	0.349315	0.356736	0.483561	0.175556	0.05087	0.000227669	0.269781	0.002843	1.553222	0.054177	0.509813
A	ROG_STREX	0.127020095	0.170034	0.189777	0.210407	0.046527	0.027097	0.026297	1.00252E-06	0.09594	0.00382	1.916254	0.050723	0.075125
A	SO2_IDLEX	0	0	0	0	8.03E-05	0.000123	0.000634	0.008878884	0.000894	0	0	0.00327	0
A	SO2_RUNEX	9.0871E-05	0.002479	0.00899	0.002994	0.006897	0.006711	0.00899	0.01107371	0.012133	0.009986	0.002125	0.008564	0.013252
A	SO2_STREX	0	0	5.31E-05	0.000634	0.000103	7.12E-05	5.31E-05	3.18327E-07	0.000161	7.2E-06	0.000592	7.38E-05	0.000156
A	TOG_DIURN	0.024504648	0.046877	0.045289	0.053293	0.001342	0.00069	0.000178	8.8987E-07	0.001328	3.52E-05	1.560998	0.000801	0.298033
A	TOG_HTSK	0.068073089	0.105171	0.092197	0.102405	0.058803	0.029286	0.00969	4.43399E-05	0.022031	0.000481	0.637848	0.007791	0.027026
A	TOG_IDLEX	0	0	0	0	0.024936	0.019194	0.018273	0.499742869	0.06949	0	0	0.709124	0
A	TOG_RESTL	0.025255995	0.046094	0.049697	0.058428	0.000823	0.000452	0.000117	6.24747E-07	0.000658	2.23E-05	0.933217	0.0004	0.132704
A	TOG_RUNEX	0.005125602	0.009666	0.009172	0.009702	0.086823	0.110734	0.013167	0.055189848	0.027522	1.832353	2.801451	0.04482	0.046019
A	TOG_RUNLS	0.179258582	0.405065	0.349315	0.356736	0.483561	0.175556	0.05087	0.000227669	0.269781	0.002843	1.553222	0.054177	0.509813
A	TOG_STREX	0.139071015	0.186166	0.207782	0.230369	0.050941	0.029667	0.028792	1.09764E-06	0.105042	0.004182	2.086656	0.055536	0.082253

PROJECT	40517 Albrae Fremont (Retail)			CalEEMod EMFAC2017 Fleet Mix Input								YEAR	2030
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.560977	0.054361	0.170105	0.106021	0.020569	0.005392	0.025302	0.048152	0.001265	0.001706	0.005082	0.000394	0.000674