Prologis Oakland Global Logistics Center

Air Quality Plan for Operations of Custom Goods

Prepared For:
City of Oakland
Planning & Building Dept.
250 Frank Ogawa Plaza
Oakland, CA 94612

Prepared By:
Prologis
3353 Gateway Blvd.
Fremont, CA 94538
+1 510 656 1900 Phone
+1 510 656 4320 Fax

www.prologis.com

Address: 2001 Maritime St., Suite 100, Oakland, CA 94607
Site Ref: CC-1, New Central Gateway Parcel

Submitted On:
v.0 – May 18, 2021
v.1 – June 24, 2021

Table of Contents

1. INTRODUCTION

Prologis is the leading global owner, operator, and developer of logistics real estate. We serve manufacturers, retailers, e-commerce businesses, transportation companies, and logistics providers with the facilities that support local, regional and global trade. Our buildings are located close to transportation infrastructure such as railways, seaports, highways, and airports. We provide our customers with best-in-class facilities and have a long history of industry-leading corporate governance and transparency.

As the ground lessee of 58 acres of the City's former Oakland Army Base site (OAB) property for the next 66 years, we intend to be good stewards of the land, and recognize the concerns of the West Oakland community we and our tenants will operate in. Prologis is also committed to the success of our business and the success of our customer's businesses who will occupy our warehouse buildings at the OAB.

Working towards the goals for improved air quality will require coordination and collaboration from all tenants of these warehouses to plan and implement emission reduction actions that are impactful, practical, and feasible.

1.1 Purpose of this Air Quality Plan for Operations of the Custom Goods Facility

The purpose of this Air Quality Plan for Operations of the Custom Goods Facility at CC-1 Warehouse (Plan) is to:

- Provide clear direction for tenant of this warehouse regarding operation air quality and energy conservation requirements for Tenant Improvements (TI) and for on-going operations throughout the duration of their lease.
- Provide a documented path of compliance for the Standard Conditions of Approval/Mitigation Monitoring and Report Program (SCA/MMRP) relating to air quality and public outreach as outlined in Mitigation Measure PO-1, which involves public outreach to Oakland Army Base stakeholders.

The Oakland Army Base Redevelopment project was approved by the City of Oakland (City) in 2002, and then revised with an Initial Study/Addendum in 2012 (OAB Project). In both of these documents, the goals and mitigations were very broad, attempting to cast a wide net over a master plan level development that was still in the conceptual stage. One of the objectives of this diesel emission reduction and operational air quality plan for the Custom Goods facility is to clarify and distill which requirements apply to operations of this particular facility, to clarify any vagueness in the applicable SCA/MMs and to comply with the mitigation measures.

1.1.1 : This document applies to the tenant referred to as Custom Goods, which will occupy the 189,038 sf warehouse at the Oakland Global Logistics Center, referred to as CC-1, address: 2001 Maritime Street.

1.1.2 : The tenant is required to comply with all applicable state and regional air quality regulations and is required to implement the components of this document.

1.1.3 : The tenant will be required to demonstrate how compliance is achieved on the specific user level.

1.1.4 : This Plan will become a component of tenant Lease documents.

1.1.5: The City of Oakland, as the lead agency under the California Environmental Quality Act (CEQA), will determine compliance with the applicable mitigation measures and will determine compliance with this Plan.

2. TENANT SUBJECT TO THIS PLAN

2.1 This Plan applies to the tenant referred to as Custom Goods, which will occupy the Prologis warehouse referred to as CC-1 located at 2001 Maritime Street. The shell of the building completed construction in October 2020, with tenant improvements planned to be completed by December 2021.

Description of Operations

The 189,038 sf building and site will be leased solely to Custom Goods, who will operate the site as a U.S. Customs and Border Protection (CBP) Centralized Examination Station (CES). Custom Goods specializes in the operation of secure cargo inspection facilities where import/export goods are examined and cleared for transport. In general, a cargo inspection facility is designed to promote safe and efficient inspections and operational support tasks by CBP officers. The overall function of the facility includes the following objectives:

- Maintain physical security standards.
- Enable rapid devanning of cargo at a CES.
- Enable secure storage and movement of cargo at a CES.
- Provide easily accessible cargo for CBP examination.
- Provide easily accessible containerized cargo reload.

Tenant Improvements inside the building will include roughly 3,000 sf of administrative offices, 11,000 sf of secure U.S. Customs offices with accessory inspection areas, approximately 40,000 sf of cold dock and refrigerated space for cold chain inspections, and remainder of space to be used as dry cargo hold or inspection areas.

The CBP inspection and processing areas are physically secure to prevent unauthorized access. The processing area includes spaces for canine inspections, X-ray screening, and agricultural examinations. During canine inspections, dogs screen the containers. The X-ray screening is conducted by non-intrusive inspection (NII) units. Processing areas generally require unreleased cargo detention areas for safe, secure, temporary cargo detainment.

There will be +/-40 active dock positions where goods are inbounded and outbounded. Reefer plugs will be provided at 50 trailer positions and at all refrigerated dock doors.

Custom Goods expects that truck traffic will be both Port drayage and over the road transportation to other destinations. The Port drayage compliment will, on average and at full capacity, represent approximately 60 to 70 round trips per day, 5 days a week. The average daily over the road drayage compliment will be 45 loads a day, 5 days a week.

Products being inspected/held will be moved around by the following material handling equipment:

- 10 ea. 6,000 lb electric fork trucks
- 2 ea. 12,000 lb electric fork trucks
- 1 ea. 35,000 lb diesel forklift
- 2 ea. diesel yard hostlers

Custom Goods estimates less than 40 employees at this facility, however Customs and Border Protection will have additional onsite staff that will operate in 2 shifts: First shift will be 40 to 60 individuals and Second shift will be 30 to 40 individuals. Parking will be fully accommodated onsite, as the current site is striped for 139 autos.

Figure 1: Site Plan – Overall Site showing building and Custom Goods' lease area subject to this Plan

2.2. Upon termination of the Custom Goods lease, a different Air Quality Plan or an addendum to this Plan may be required as determined by the City. Stakeholder notification will be provided for revisions the City determines to be substantive.

2.3: If an amendment or exception to this Plan is requested or determined to be necessary, the City will evaluate the scope of the amendment/exception and shall determine the necessary process for undertaking such an amendment/exception. Stakeholder notification will be provided for amendments or exceptions which the City determines to be substantive.

3. SCA/MMRP REQUIREMENTS

The OAB project was approved in 2002, and then revised with an Initial Study/Addendum in 2012. The City of Oakland prepared a SCA/MMRP, which was approved by the Oakland City Council on July 16, 2013, superseding a previous version dated October 15, 2012. This Plan focuses on the air quality conditions of approval and mitigation measures (together "MM's") identified in the SCA/MMRP. The entirety of the SCA/MMRP is available on the City of Oakland website.

Table 1 below lists the air quality-related MMs applicable to this tenant/building. Prior to receiving the building shell and sitework permits for construction of this building, Prologis prepared (and the City approved) the Construction Management Plan, which addressed the construction related air quality MMs. The table below shows how the applicable air quality MMs are addressed. Additionally, it should be noted that SCA Air-3 and MM 4.4-3b do not apply to the Custom Goods operations. SCA Air-3 applies only to buildings which will contain sensitive receptors (e.g., hospitals, schools, etc.) and MM 4.4-3b applies only to maritime uses at the West Gateway bulk marine terminal.

Table 1: Summary of Air Quality SCA/MMRP Requirements and the Response Method which addresses each one

SCA/MM #	Description	Response Method
AIR-1	Construction Management Plan	Construction Mgmt Plan/Previously Approved
AIR-2	Construction Related Air Pollution Controls	Construction Mgmt Plan/Previously Approved
TRANS-2	Construction Traffic & Parking	Construction Mgmt Plan/Previously Approved
MM 4.3-13	Traffic Control Plan – Hazmat	Construction Mgmt Plan/NA

MM 4.4-6	Energy Conserving Fixtures/Design	Air Quality Operational Plan
MM 4.4-4	Truck Diesel Emissions Reduction Plan	Air Quality Operational Plan
MM 4.4-5	Transportation Control Measures	Air Quality Operational Plan
TRANS-1	Parking and Transportation Demand Mgmt	Air Quality Operational Plan
MM 5.4-1	Demonstration Projects	Air Quality Operational Plan

4. Elements of this Air Quality Plan for Operations of the Custom Goods Facility

This Plan contains the following components:

4.1) Truck and Equipment Diesel Emission Reduction (MM 4.4-4)
4.2) Encourage, Lobby, and Participate in Emission Reduction Demonstration Projects (MM 5.4-1) 4.3) Technology Review Program (MM 4.4-4)
4.4) Sustainable Design and Construction (MM 4.4-6)
4.5) Transportation Control Measures and Parking/Transportation Demand Management (SCA TRANS-1, MM 4.4-5)
4.6) Quantification of Diesel Emissions (4.4-4)

4.1 Truck and Equipment Diesel Emission Reduction

The requirements listed below will reduce the diesel emissions, including diesel particulate matter and nitrogen oxides, produced during the operation of this warehouse.

Trucks

4.1.1) On-Road Trucks – All diesel trucks with a gross vehicle weight rating over 14,000 pounds entering the site of this warehouse must comply with the Truck and Bus Regulation of CARB which is in effect at the time of operation of the truck(s).

4.1.2) Drayage Trucks [1]– Should Custom Goods receive cargo from the maritime terminals, an intermodal rail yard, or property of the Port of Oakland, the trucks doing so must comply with the Drayage Truck Regulation (DTR) of the California Air Resources Board (CARB) which is in effect at the time of operation of the truck(s). See California Air Resource Board's Drayage Truck Regulation for more details, including truck engine year requirements and truck registry requirements.

[1] Drayage trucks are defined by CARB as diesel-fueled Class 7 or Class 8 Trucks with gross vehicle weight rating 26,001 lbs. or more that transport cargo, containers, or chassis to or from a port or intermodal rail yard in CA.

4.1.3) Trucks with transport refrigeration units (TRUs) – Roughly 40 percent of the trucks arrive at the Custom Goods facility in refrigerated vehicles. Electrical outlets are planned and required to be installed at the loading docks serving the refrigerated portion of the facility so trucks can run refrigeration with electricity while loading and unloading. Custom Goods shall use "good faith" efforts such as posting signs on the loading dock indicating plug-in availability and email notification to vendors encouraging use of plug in capable vehicles at the Custom Goods facility to maximize the number of deliveries with plug-in refrigeration compatible delivery trucks with the goal of 100%. Custom Goods would be responsible for ensuring use of electrical outlets during loading and unloading per Section 4.1.4 below.

4.1.4) Idling Rules for all trucks - All size and types of in-bound and out-bound delivery vehicles shall be prohibited from idling more than 2 minutes when loading and unloading or staging at this site. The idling rules shall be posted in easily-visible locations on-site and shall be enforced by Custom Goods.

4.1.5) Management of Loading Docks or loading/unloading - A dock management or loading/unloading system shall be developed and implemented by Custom Goods for delivery requirements to ensure that truck idling times do not exceed two minutes when the trucks are on site, and that electric capable TRU's are plugged-in, and that on-site TRU diesel engine runtime be no more than fifteen minutes.

4.1.6) Compliance with Truck Routes and with the West Oakland Truck Management Plan – All trucks serving the Custom Goods warehouse must use designated truck routes to arrive and depart from this building. Additionally, such trucks shall comply with the West Oakland Truck Management Plan (approved by the City and Port on April, 2019), or with other City-approved truck regulations in effect at the time of operation of the truck serving this tenancy.

4.1.7) CARB Compliance for Trucks –

a. Compliance with applicable air quality regulations for commercial trucks and vans are required including, but not limited to, the CARB Tractor-Trailer Greenhouse Gas Reduction Regulation, Periodic Smoke Inspection Program, Statewide Truck and Bus Regulation or Drayage Regulation.

b. All truck fleets owned by Custom Goods, or under contract with Custom Goods to provide delivery services to/from this warehouse, shall provide proof of compliance through CARB certificates of compliance or copies of annual smoke test results.

Off-Road Equipment used in the Custom Goods operation

4.1.8) Off-Road Equipment

a. Outdoor off-road equipment over 25 horsepower, including but not limited to yard equipment, exterior forklifts and pallet jacks, shall be zero and near-zero emission equipment. This includes Tier 4i or Tier 4 diesel equipment (or equivalent if Tier system is not applicable to a particular piece of equipment). Such equipment can also be electric, propane, bio-diesel, and alternative-fueled equipment.

b. Indoor off-road equipment including but not limited to interior forklifts, scissor lifts, pallet jacks and "order pickers" shall be electric, propane or alternative-fueled equipment.

c. Custom Goods shall submit an equipment list of all off-road equipment to be used both indoors and outdoors to demonstrate that zero and near-zero emission (including Tier 4 or 4i diesel equipment or equivalent) equipment, or electric, propane, bio-diesel or alternative-fueled equipment will be used during operations.

d. All off-road equipment shall be properly serviced and maintained throughout the life of the equipment.

e. Compliance with all applicable CARB regulations for off-road diesel equipment used at this site is required, including but not limited to the Diesel Off-Road Online Reporting System (DOORS) and the Equipment Identification Number (EIN).

f. Also see Section 4.3 of this Plan related to the Technology Review Program.

4.1.9) Idling Rules for off-road equipment - Diesel off-road equipment shall be prohibited from idling more than 2 minutes when loading and unloading, staging, or when not in active use. See CARB regulation for in-use off-road diesel vehicles for clarification of what is considered idling. The idling rules shall be posted in easily-visible locations on-site.

4.2 Participation in Emissions Reduction Demonstration Projects

Custom Goods shall evaluate emission reduction demonstration projects that promote technological advances in improving air quality. Examples of some demonstration projects include but not limited to: CNG/LNG trucks, energy generation via alternative systems electricity.

Custom Goods is encouraged to utilize innovative and cleaner technology/equipment from operations in other Custom Goods locations.

Custom Goods will provide contact information to the BAAQMD for receipt of information regarding grants, vouchers and other funding opportunities for demonstration opportunities.

Custom Goods will report on demonstration projects considered per the Technology Review Program below.

4.3. Technology Review Program

Custom Goods shall use cleaner technology over time as it becomes more readily available, practical and economically feasible. To accomplish this, Custom Goods shall review new technology every three years and with equipment turnover (prior to acquisition of, or lease of) additional or replacement of Custom Goods fleet trucks or on-site equipment to see if zero or near-zero equipment is economically feasible and practical.

Custom Goods shall investigate and make part of such analysis, any grant, voucher or other type of program that would help offset cost and / or otherwise make such equipment available, practical and economically feasible. Custom Goods shall submit such technology review to the City upon request.

If the technology review demonstrates that new technology/equipment will be effective in substantially reducing emissions, is available, practical and economically feasible as determined by Custom Goods, then Custom Goods shall implement such technology within 12 months.

4.4 Sustainable Design and Construction

Sustainable design of tenant improvements has a beneficial impact on long-term emissions reduction, improved air quality and reduced energy consumption. Tenants are required to comply with all applicable state and regional air quality regulations and are required to implement the following:

4.4.1) LEED Gold – The core and shell of this building achieved a "Gold" level certification per the United States Green Building Council's (USGBC's) Leadership in Environmental and Environmental Design (LEED) rating system, which surpassed the requirements of the statewide Title 24 building code requirements and the requirements of the SCA/MMRP. As part of the Gold level Core and Shell certification, it is expected that the tenant improvements (TI) will be performed under a separate scope and includes a provision to include the following sustainable design measures in the TI not a part of the shell build-out.

Custom Goods must follow the design guidelines set forth under LEED Gold Core and Shell system. This LEED addenda shall be included by Prologis as an exhibit to the

tenant's lease. In 2018, requirements of LEED Gold include items such as:

- Bike storage, changing rooms and showers
- Low flow plumbing fixtures
- Energy efficient lighting, including light emitting diode fixtures (LED)
- Natural ventilation

Custom Goods is also encouraged, but not required, to obtain LEED-CI (Commercial Interiors) certification, preferably also at a Gold level.

4.4.2) Title 24 Compliance – Tenant construction and improvements shall meet Title 24 (Building Energy Efficiency Program) of the International Building Code (IBC)/California Code of Regulations (CCR) to satisfy Mitigation Measure 4-4.6. This will be required in order to obtain a building or TI permit from the City of Oakland.

4.4.3) Renewable Energy and Infrastructure for charging Electric Trucks and Off-Road Equipment–
a. The City encourages use of a renewable energy system or combination of systems (solar/wind/mechanical/tidal/hydrogen) designed to offset 20% of building's annual electrical consumption. Custom Goods and Prologis are currently working on providing solar panels to offset electricity demand with the plan to install once the exact refrigeration and electrical loads are determined.
b. Rooftop solar photovoltaic (PV) power is preferred and is in the planning stages.
c. The shell building roof structure of this warehouse building has been designed to support solar panel load.
d. The electrical room has been sized for additional future solar PV infrastructure.

4.5 Transportation Control Measures & Parking/Transportation Demand Management

Transportation Control Measures (TCMs) in MM4.4-5 are intended to provide alternative ways for employees to commute to work at this warehouse.

Transportation Control Measures
In addition to the fair share program implemented by the City and the Port for the OAB project, Custom Goods is required to implement TCMs 9, 11, and 13 per MM 4.4-5:

9 – Provide preferential parking for carpool and vanpool vehicles per City of Oakland and LEED standards.
11 – Secure, weather protected bicycle parking shall be provided on-site, such as through bike lockers.
13 – Showers and lockers will be provided part of the tenant improvements.

Additionally, electrical vehicle charging station infrastructure for cars will be installed in the parking lot of this warehouse and as well as necessary

infrastructure in place for future truck charging stations.

4.5.1) Fair Share Participation – The developer of this building is participating in the City's defined "fair share" program and has contributed to its fair share funded TCM programs, as described in the Fair Share Program. The City shall take lead on implementing the fair share program.

4.5.2) Parking and Transportation Demand Management – Custom Goods shall prepare and implement a Parking and Transportation Demand Management Plan per SCA TRANS-1, consistent with the number of onsite employees, with the goal of reducing drive-alone commute trips during the peak trafficperiods.

4.6 Quantification of Diesel Emissions

The 2012 Initial Study/Addendum analyzed whether the OAB Project (as defined in Chapter 2 of the Initial Study/Addendum) would result in total OAB Project emissions which exceed 1999 BAAQMD Significance Thresholds as specified in the 2012 Addendum. Such Thresholds are established for reactive organic gases, nitrogen oxides (NOx), particulate matter (PM) 10 and PM2.5; the applicable Threshold for each of these pollutants as clarified on page 132 of the Initial Study/Addendum was 15 tons per year. Table 3.3-8 on page 150 of the Initial Study/Addendum shows that OAB Project emissions of NOx exceed the Threshold of Significance, while also showing that the other pollutants do not exceed the Threshold of Significance.

Operations of the Custom Goods facility shall, as stated in MM 4.4-4, "strive to reduce contributions to West Oakland diesel emissions to less than significant levels", using the thresholds of significance identified in the 2012 Initial Study/Addendum. Reducing diesel emissions will have two benefits: reducing NOx and reducing PM2.5, which is a toxic air contaminant.

To determine if the diesel emission reduction actions required by this Plan will reduce emissions associated with operations of the Custom Goods facility to a less than significant level, such emissions are quantified below.

This was done by quantifying the emissions from diesel trucks which will serve the Custom Goods facility using the Institute of Transportation Engineers (ITE) Trip Generation 10th edition OR actual verifiable data of the Custom Goods daily truck and passenger vehicle trips, and the most recent California Emissions Model (CalEEMod) to quantify emissions per ton per year for their operations.

RESULTS: This quantification of emissions was undertaken in May 2021 using data from Custom Goods on the daily truck and passenger vehicle trips and the CalEEMod 2016.3.2 model and EMFAC 2017. This analysis looked at two different points in time: 1) At

launch, 2022; and at 2024, with fleet turnover, retrofit or replacement per ARB motor vehicle regulations. A separate analysis was prepared to quantify the onsite TRU emissions associated with the project. The TRU NOx emissions will be: 0.10 tons per year in 2022 and 2024. The total NOx emissions including vehicles and TRUs will be: 0.43 tons per year in 2022, and 0.37 tons per year in 2024. This amount is below the Threshold of Significance for NOx which, per the 2012 Initial Study/Addendum, was 15 tons of NOx per year. As stated previously, the 2012 Initial Study / Addendum found that PM2.5 emissions associated with the trucks from this facility fall below the individual project threshold of 10 tons per year from the newer BAAQMD 2011 Guidelines. In addition, diesel particulate matter impacts at the nearest offsite receptor location would fall below the threshold for increased cancer risk: less than 10 cases per million, non-cancer hazard index less than 1.0, and PM2.5 level of less than 0.3 ug/m^3 annual average.

4.6.1 As other uses and facilities are constructed at the OAB, the required operational air quality plan for each individual project will quantify its individual emissions and provide a calculation for the cumulative emissions of all permanent projects at the OAB based on the prior operational air quality plans against the Thresholds.

4.6.2 If emissions per tenant exceed the Threshold of Significance when added together with other permanent operations under way at the OAB, then all tenants will meet and discuss with the City what other feasible measures can be implemented to further reduce emissions from operations. Any measures agreed to by both City and tenants shall be implemented within a reasonable time period agreed upon by the City and the tenant(s).

5. PLAN IMPLEMENTATION

Custom Goods shall provide Prologis with all required annual compliance documentation, in the appropriate format, for subsequent timely submission by Prologis to the City's Environmental Review Officer for each element of this Plan per table 2 below. The City will be responsible for reviewing and approving the compliance.

Such compliance shall be subject to audit at City's discretion, not more than one per year, other than the Technology Review which is to be submitted to the City every three years. The City shall give 30-day notice prior to audit. The results of the compliance audit shall be available upon request and posted to the City's website.

Table 2 – Operational AQ Plan Compliance Summary Table Example

ID	Description of Plan Element	Compliance Method/Description	Required Date of Compliance
4.1	**T/E Diesel Emission**		

	Reduction		
	4.1.1 – Drayage Trucks	[provide truck or truck fleet compliance certificate]	If operations change such that drayage trucks are used; upon audit.
	4.1.2 – On Road Trucks	[provide truck fleet compliance certificate]	Prior to occupancy and upon audit.
	4.1.4 – Off Road Equipment	[provide off-road equipment fleet info; participate in CARB DOORS program]	Prior to occupancy and upon audit.
	4.1.6 – Idling Rules	[provide idling policy signage]	Prior to occupancy
	4.1.7 – Dock Management	[provide a plan to monitor truck deliveries and potential queuing]	Prior to occupancy
	4.1.8 – CARB Compliance	[provide fleet info]	Continuous; upon audit
4.2	**Sustainable TI Design**		
	4.2.1 – LEED Gold Compliance	[reference plan sheets or submittals where LEED Addenda items are shown]	Prior to occupancy
	4.2.2 – Title 24 Compliance	[provide statement on sheet indicating T24 compliance]	Prior to issuance of building permit for TI
	4.2.3 – Renewable Energy	[describe solar PV or other onsite renewable energy system – KW generation]	If proposed, prior to occupancy or per Technology Review
4.3	**Transportation Control Measures**		
	4.3.1 – Fund Fair Share Programs	[City assessed fair share]	Paid by Prologis in full
	4.3.2 – Parking/TDM Program	[provide a plan to reduce employee single-driver traffic]	Prior to occupancy
4.4	**Demonstration Projects**		
	4.4.1 – Demo Projects Participation	[provide any demonstration projects]	Continuous
4.5	**Technology Review**		
	4.5.1 – Technology Review Program	[provide periodic updates over time]	Continuous

4.6	Quantification of NOx emissions If cumulative threshold exceeded, Tenants and City will meet and discuss other feasible reduction measures to be implemented within an agreed upon time frame.	As needed

Timing to implement most of these plan elements will happen as the tenant improvements are constructed or as operations begin. However, Prologis nor the tenant controls the implementation timing of the fair share program elements. The fair share elements are City-led programs.

From time to time, tenant may be required to provide reporting on the progress or maintenance of various plan elements (for example, updating truck fleet as new vehicles are purchased). Any update requests shall be initiated by the City and tenant shall provide the requested information.

Exhibit A

This is a Summary of the report done by Mitchell Air Quality in May 2021 submitted to the City and is included in this plan as Exhibit B.

Quantification of Diesel Emissions for the Custom Goods facility at OGLC-3

In order to determine if the diesel emission reduction actions required by the *Air Quality Plan for Operations of the Custom Goods Facility at the OGCL-3 Warehouse* will reduce NOx emissions below the Thresholds of Significance specified in the Initial Study/Addendum for development at the Oakland Army Base Project, the emissions associated with operations of the Custom Goods facility was quantified. This quantification of NOx emissions was undertaken in May 2021 using data from Custom Goods on the daily truck and passenger vehicle trips and the CalEEMod 2016.3.2 model and the ARB EMFAC 2017 model. The analysis includes emissions from Transportation Refrigeration Units (TRU) and onsite material handling equipment (MHE). Specifically, the Custom Goods estimates that 40 percent of the trucks at the facility will be equipped with TRUs. As such, Custom Goods expects approximately 140 daily diesel-powered Drayage Trucks per day (70 two-way trips per day) and approximately 90 diesel powered over-the-road trucks per day at full capacity (45 two-way trips per day). Based on this information, the project is expected to generate 307 average annual two-way trips per day including all trucks and cars used for incoming and outgoing deliveries and employee trips per day at full operation for 5 days per week. The project also includes two-yard hostlers and 1 35,000-pound capacity diesel forklift.

The project building would be used for processing incoming material from ships at the port and outgoing material for export through customs and inspections. The truck trips used to haul the material to and from the port are existing trips that occur without the project. The material is currently processed at other locations outside of the port and OGLC after leaving the waterfront. The only new emissions that would occur are from employee compute trips to and from the project building, material handling equipment used to position trailers and containers onsite, and additional transportation refrigeration unit (TRU) use while the trucks are parked at the project site.

This analysis showed NOx emissions will be 0.43 tons of NOx per year which is well below emissions estimated in 2012 for a transloading warehouse for this site (6.60 tons per year), well below the Threshold of Significance which is 15 tons per year.

Tenant	Size of lease area	Number of daily truck trips	Number of daily employee trips	NOx emissions estimated in 2012 for a transloading warehouse of this size (tons/year)	NOx emissions estimated in in 2024 based on Custom Goods use[2] (tons/year)	Threshold of Significance for NOx in tons/year[3]
Custom Goods	189,038	164	143	6.60	0.43	15

As stated in Section 4.6 of the *Air Quality Plan for Operations of the Custom Goods,* other tenants at the OAB Project will be required to quantify the emissions associated with their operations. These estimates will form a calculation for the cumulative emissions for all permanent projects at the OAB to determine if cumulative emissions stay below the Threshold of Significance. See Section 4.6 for more details.

Toxic Air Contaminants

Diesel particulate matter (DPM) emissions associated with the trucks serving this facility would not exceed the individual project threshold of increased cancer risk: less than 10 cases per million, the non-cancer hazard index less than 1.0, and PM2.5 level of less than -0.3ug/m^3 annual average. As shown in the following table, PM2.5 emissions from the Custom Goods facility in 2022 would not exceed the 1999 BAAQMD criteria pollutant emission threshold which is used as a surrogate for DPM.

Tenant	Size of lease area	Mobile Source Emissions (tons/year)	TRU Emissions (tons/year)	Total Emissions (tons/year)	Threshold of Significance for PM2.5 in tons/year[3]
Custom Goods	189,038	0.045	0.004	0.046	15

The Air Quality Plan includes two measures to reduce PM2.5 emissions from the project from onsite trucks. The first measure requires the loading docks to be electrified so that trucks and trailers with TRUs with plug in capability can run their refrigeration systems on electricity instead of using diesel power. TRU PM2.5 emissions are zero when operating on electricity. The loading dock and trailer stall electrification measure would provide a PM emission reduction from TRU use of 1.31 pounds per year in 2022. The second measure provides a commitment to prohibit idling for more than 2 minutes when the trucks are onsite. This provides a 60 percent reduction in idling emissions when compared with compliance with the ARB's idling regulation which limits idling to 5 minutes. This measure would reduce PM2.5 emissions by 0.60 pounds per year. Although the reductions appear

small, they provide substantial benefits for people working on or near the loading docks and parked trucks.

[2] Quantification of emissions from diesel trucks serving the Custom Goods facility was done based on data from Custom Goods estimating the daily truck and passenger vehicle trips, and the current California Emissions Model (CalEEMod) 2016.3.2. and EMFAC 2017.

[3] Thresholds of Significance are as specified in the 2012 Initial Study/Addendum, pages 132 and 133.

Exhibit B

Quantification of Diesel Emissions for the Custom Goods Facility at Building 3 Warehouse in Oakland, California

Mitchell Air Quality Consulting

May 17, 2021

Cory Alvin, Environmental Coordinator
City of Oakland, Bureau of Planning
250 Frank H. Ogawa, Suite 3315
Oakland, CA 94612

Subject: Quantification of Motor Vehicle Emissions for the Oakland Global Logistics Center Building 3 Project in Oakland, California

Dear Mr. Alvin:

Mitchell Air Quality Consulting (MAQC) prepared an assessment to determine the truck and passenger vehicle emissions associated with Oakland Global Logistics Center (OGLC) Building 3 including transportation refrigeration units (TRU) and yard hostlers. The purpose of the assessment is to determine if the diesel emission reduction actions required by the *Air Quality Plan for Operations of Custom Goods* will reduce NOx emissions below the Thresholds of Significance specified in the Initial Study/Addendum for development at the Oakland Army Base Project. The analysis focuses on oxides of nitrogen (NOx) which exceeded the Bay Area Air Quality Management (BAAQMD) threshold of significance in the 2002 EIR and 2012 IS/Addendum studies. The assessment also quantified $PM_{2.5}$ which is used as a surrogate for diesel particulate matter (DPM). PM_{10} was also provided in the analysis for information only.

Project Assumptions

The project building would be used for processing incoming material from ships at the port and outgoing material for export through customs and inspections. The truck trips used to haul the material to and from the port are existing trips that occur without the project. The material is currently processed at other locations outside of the port and OGLC after leaving the waterfront. The only new emissions that would occur are from employee compute trips to and from the project building, material handling equipment used to position trailers and containers onsite, and additional transportation refrigeration unit (TRU) use while the trucks are parked at the project site. The analysis also assessed the overall emissions that would occur including all new and existing sources accounting for existing emissions. The new emissions include only employee commute trip emissions, onsite idling emissions, onsite TRU emissions, and onsite material handling equipment (MHE) emissions.

The analysis assessed emissions at the expected date of first operations in 2022. A second set of model runs were prepared for 2024 to match analyses prepared for previous projects for use in showing cumulative progress in staying within emission budgets. The results include the benefits of mitigation measures to reduce project emissions. The emissions represent the net increase from existing conditions. The project uses CalEEMod 2016.3.2 and ARB EMFAC 2017 model to estimate emissions. Vehicle trip generation rates were provided by the future tenant (Custom Goods, Inc.). Offroad mobile equipment emission estimates use Offroad 2017 and CalEEMod emission factors.

Analysis Results

The existing plus project emission results and the new project emissions results are included in Appendix A. Table 1 presents a summary of the new emissions that would occur as the result of the project in 2022.

Table 1: 2022 OGLC-3 Annual Air Pollutant Emissions during Operations

Emissions Source	Emissions (tons per year)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Port Drayage Trucks Idling	0.00	0.17	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.03	0.00	0.00
Transportation Refrigeration Units (TRU)	0.00	0.10	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.03	0.04	0.15	0.04
Total	**0.04**	**0.43**	**0.16**	**0.05**
BAAQMD threshold for1999	**15**	**15**	**15**	**15**
Exceed Threshold?	No	No	No	No

Notes:

ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter

Source: CalEEMod output and spreadsheet calculations (Appendix A).

The analysis showed that the increase in NOx emissions from OGLC-3 will be 0.43 tons of NOx per year in 2022 with mitigation. Project emissions are well below the BAAQMD 1999 Threshold of Significance which is 15 tons per year. The analysis also found that exhaust PM10 emissions including TRUs at full operations in 2022 will be 0.16 tons/year with mitigation, which fall well below the threshold of significance for PM10 of 15 tons/year, and $PM_{2.5}$ emissions will be 0.05 tons/year (there was not a Threshold of Significance for $PM_{2.5}$ applicable to the 2012 project). Although there was not an applicable threshold for $PM_{2.5}$, it should be noted that emissions for $PM_{2.5}$ will not exceed the BAAQMD 2011 $PM_{2.5}$ Threshold of Significance which is 10 tons per year. The results reflect compliance with mitigation measures to reduce project emissions from vehicle idling and from TRU operation.

A second set of modeling runs was performed to show the emissions that would occur in 2024 with continued implementation of ARB motor vehicle regulations and vehicle fleet turnover as newer cleaner models are purchased and old models are retrofitted to meet fleet requirements. NOx emissions are expected to decline by nearly 20 percent in just two years during this period.

Table 2: 2024 OGLC-3 Annual Air Pollutant Emissions during Operations

Emissions Source	Emissions (tons per year)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Port Drayage Trucks Idling	0.00	0.12	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.03	0.00	0.00
Transportation Refrigeration Units (TRU)	0.00	0.10	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.02	0.03	0.15	0.04
Total	**0.04**	**0.37**	**0.16**	**0.05**
BAAQMD threshold	**15**	**15**	**15**	**15**
Exceed Threshold?	No	No	No	No

Notes:

ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter

Source: CalEEMod output and spreadsheet calculations (Appendix A).

The analysis used CalEEMod 2016.3.2 to estimate project emissions with trip generation rates based on information provided by the Custom Goods for truck trips and numbers of employees that will work at the project site at full operations. The tenant indicated that at full operation the project would generate 70 incoming and 70 outgoing Drayage Truck trips per day that operate only at the port and 45 incoming and 45 outgoing trips by over the road trucks (T7 Tractor) that travel to and from offsite destinations. The facility is expected to employ 100 people at full operation which would generate 100 incoming and 100 outgoing trips per day during their commute to work and home, assuming no carpooling or transit use. The analysis used EMFAC 2017 emission factors for the truck emissions using the composite vehicle age distribution for 2022 and 2024 and the composite vehicle speed. Modeling assumptions and modeling runs used in the analysis are provided in Appendix A.

The project will include trucks equipped with transportation refrigeration units (TRU) powered by diesel engines. The tenant estimates that 40 percent of the trucks will be equipped with TRUs (46 trucks/trailers). There are a wide variety of TRU designs installed on refrigerated trucks. The most common are powered by a small diesel engine (average is about 34 horsepower (HP) and they operate when the vehicle or trailer is parked and when moving. Some configurations use a diesel generator that runs the cooling system with electricity. Some of these systems can plug in at loading docks using grid power to operate the cooling system or they can operate on power from the diesel engine when no plug in is available. The project loading docks will have plug in capability, so those trucks would have no TRU emissions while at the loading docks. The ARB estimates that approximately 60 percent of semi-trucks are plug-in capable. The analysis assumed that all TRUs would be diesel powered and an average of 28 trucks with TRUs would be plugged in

at the loading docks each day. The onsite semi-truck TRU emissions would be reduced by 60 percent based on these assumptions. Over time, more and more TRUs are expected to include plug in capability to take advantage of fuel savings and to comply with regulations.

A TRU emission analysis was prepared for the project for NOx and PM emissions. The analysis uses ARB emission factors for TRUs. The ARB Airborne Toxic Control Measure for in-use Diesel Fueled TRU and TRU Generator Sets, and Facilities Where TRUs Operate requires the retrofit or replacement of all TRUs with units meeting Ultra-Low Emission standards by 2019 (0.02 g/bhp-hr) to reduce diesel particulate matter. This means that all trucks with TRUs accessing the site will meet this standard in 2022. The TRU NOx emission factor used in the analysis is 4.43 g/bhp-hr based on ARB offroad emission factors for 2010 model year TRUs. TRUs for the 2020 model year have an emission factor of 2.7 g/bhp-hr, showing that emissions will decline as newer TRUs replace older higher emitting models. The TRUs are assumed to run 50 percent of the time to maintain the appropriate temperature. The onroad TRU use is considered part of the existing conditions since the trucks equipped with TRUs currently travel directly to the port from a location outside the Prologis development area. The on-road operating time to determine existing emissions was based on the time to travel the average trip length within the community (CalEEMod default 7.3 miles at 30 mph). The time of TRU operation onsite was estimated at 1 hour per day per TRU based on assumptions used for other projects. After vehicles are unloaded, no TRU operation is needed. The results for TRU use presented in Table 1 and Table 2 represent onsite TRU use only. The analysis of existing plus project TRU use is provided in Appendix A.

The loading dock electrification measure would provide a 60 percent reduction in TRU use. The measure provides a PM emission reduction from TRU use of 0.0007 tons per year in 2022. NOx reductions from this measure are 0.15 tons per year in 2022. The results of the TRU analysis are provided in Table 3.

Table 3: OGLC-3 Project TRU Emissions

Source	PM lbs/year	PM (tons/year)	NOx lbs/year	NOx (tons/year)
On Site Use Drayage and T7 Trucks	2.183	0.0011	483.6	0.242
Reduction from Electric Plug In	1.31	0.0007	290.15	0.1451
On-Site TRU Emissions with Mitigation	**0.87**	**0.0004**	**193.15**	**0.0967**

Notes
[1] Modeling assumptions and emission calculations are provided in Appendix A.

The project's Air Quality Plan includes a commitment to prohibit idling for more than 2 minutes when the trucks are onsite. This provides a 60 percent reduction in idling emissions when compared with compliance with the ARB's idling regulation which limits idling to 5 minutes. Compliance with this measure would reduce NOx emissions by 0.57 tons per year and PM emissions by 0.0002 tons per year.

The project includes offroad material handling equipment to position trailers and containers onsite. The project includes two diesel powered yard hostlers and one 35,000-pound capacity forklift. The yard hostlers and forklift are considered offroad mobile equipment. The yard hostlers are assumed to operate 2 hours per day. The forklift is assumed to operate 7 hours per day. The emission factors are based on emission factors for equipment meeting Tier 4 emission standards. The emissions from the equipment are included in Tables 1 and 2.

OGLC-3 project emissions based on project specific information and the emissions allocated to this building in the 2012 Addendum are shown in the following Table. The reductions in TRU emissions from use of electric plug ins and from the idling reduction measure are included in the results.

The project reactive organic gas (ROG) emissions in the 2012 Addendum did not exceed the BAAQMD 1999 threshold (15 tons per year); therefore, the impact was less than significant and no mitigation measures were required to reduce ROG. Modeling results presented in the Table 4 for the project at maximum operations levels in 2022 show that ROG emissions would amount to 0.12 tons per year which is only 1.2 percent of the 1999 threshold.

Table 4: OGLC Building 3 (Cold Storage) Project NOx Emissions

Tenant	Lease Area (sf)	Annual Average Daily Truck Delivery Trips	Annual Average Daily Employee/ Other Trips	Emissions (tons/year)		
				NO_X (2012 EIR Transload Warehouse	NO_X (2022 Based on Project Data)	BAAQMD 1999 NOx Threshold
OGLC 3 Cold Storage	189,038	164	143	6.60	0.43	15[1]

Notes
[1] Thresholds of Significance are as specified in the 2012 Initial Study/Addendum, pages 132 and 133.
[2] Quantification of emissions from diesel trucks serving the facility uses information provided by Custom Goods including: estimated number of daily truck and employee vehicle trips. Emissions were calculated using CalEEMod 2016.3.2 with EMFAC 2017 Emission Factors for diesel trucks.

Toxic Air Contaminants

MAQC reviewed the air quality discussion contained in the 2012 IS/Addendum (for the OAB Project) and the 2002 EIR (which analyzed a larger redevelopment project, see Project Description in the 2002 EIR). The health risk discussion in the 2012 IS/Addendum referring to the results of the 2002 EIR assessment indicated that increased cancer risk from emissions for the entire OAB project were 10 in a million at receptor locations in West Oakland and 62 in a million at the property line. The BAAQMD project level threshold of 10 in a million increase in cancer risk applies to the most impacted offsite receptor. The current project no longer includes day care facilities or schools within the project site. The 2012 EIR did not include a receptor location map or an impact contour map to show the location of receptors used to determine the impact. However, the 2012 project is assumed to have included onsite receptors at day care facilities within the Research and Development/Office component that is no longer part of the project. A recreational receptor was also included for people fishing at the waterfront areas, but that

receptor is located upwind of the OGLC and City of Oakland Port project area and would receive most of its impacts from ships and trucks loaded at the port. Therefore, the most impacted receptor for the current project would be located in West Oakland approximately 2,300 feet from the project boundary. DPM emissions have dropped substantially since 2002 and the health risk impacts would be proportionally lower with the reduction in DPM emissions. The analysis includes onsite DPM emissions from trucks equipped with TRUs. The TRUs add about 0.87 pounds per year of DPM at full project operation in 2022. Yard hostlers and forklifts are estimated to contribute approximately 7.9 pounds per year of DPM in 2022. Onsite truck idling contributes 0.27 pounds per year of DPM. The total project onsite DPM emissions are estimated at 9.0 pounds per year, which at 2,300 feet from the receptor would not add significantly to cancer risk in the community because of the effects of dispersion on the pollutant concentrations. The on-road emissions are considered part of the existing conditions and would not increase the risk to the neighboring community. Therefore, the impacts associated with toxic air contaminants for the OGLC-3 project would also fall below the thresholds of significance for toxic air contaminants.

Summary and Conclusion

Project emissions are well below all BAAQMD thresholds of significance for these pollutants. Toxic emissions at the most impacted receptor location is now expected to be less than significant. The project's emissions will continue to decline as fleets serving the project comply with new regulations and adopt new technologies. The project will achieve additional reductions from implementation of onsite measures included in the facility's Air Quality Plan to reduce idling beyond ARB regulation from 5 minutes to 2 minutes and to install electric plug-ins at loading docks to reduce TRU use. The reduced idling measure provides a 60 percent reduction in idling emissions. The loading dock electrification measure reduces onsite semi-truck/trailer TRU use by 60 percent.

If you have any questions regarding this analysis, please call me at 559.246.3732, or via email at dmitchell@mitchellaq.com

Sincerely,

David M. Mitchell

David M. Mitchell, Owner
Mitchell Air Quality Consulting
1164 E. Decatur Avenue
Fresno, CA 93720

APPENDIX A: Modeling Assumptions and Results

OAB NOx Emissions in tons per year for transport trucks and passanger vehicles, allocated per Building

Prepared by Dave Mitchell, Mitchell Air Quality Consulting

April 16, 2018

2012 EIR Addendum Traffic Study Trip Generation. Data is from table in Appendix B of 2012 Addendum

ITE 9th Edition Trip Generation with Current Site Plan Reference

OAB City Area	Site Ref 2012	Allowable building square footage	Daily Trips (cars and trucks)	Trips/KSF	Daily Car Trips	Truck Percent	Daily Truck Trips	Truck Trip Percent of Gateway Area	CalEEMod VMT	Share of 2012 Truck NOx Emissions (tons/yr)	Share of 2012 Car NOx Emisions (tons/yr)	Total 2012 NOx Emissions by Building (tons/yr)	Emissions to Achieve BAAQMD 1999 Threshold	NOx Reductions Required per Building (tons/yr)	2012 NOx Emissions/KSF	Site Reference 2017	Allowable building SF	Truck Percent from EIR	ITE 9th Ed Trip Gen Rate (trips/KSF)	Current Site Plan Daily Trips (cars and trucks)	Daily Car Trips	Daily Truck Trips	Trips/KSF for CalEEMod Run Cars Only	Trips/KSF for CalEEMod Run Trucks Only	Car Emissions (tons/yr)	Truck Emissions (tons/yr.)	CalEEMod Total Emissions per Building Tons/yr	Emissions to Achieve BAAQMD 1999 Threshold (tons/yr)	Nox Reductions Required per Building (tons/yr)	Emissions Based on 2012 Rate and 2017 Site Plan (tons/yr)	Emissions to Achieve BAAQMD 1999 Threshold (tons/yr)	Nox Reductions Required per Building (tons/yr)
																											2017 Site Plan Allocation New Modeling			2017 Site Plan w/2012 Emission Rates		
CW1	WGW	146,000	547	3.75	438	20.0%	109	8.3%		3.43	0.49	3.92	0.39	3.524	0.027	WGW	146,000	20.0%	1.68	245	196	49			0.065	0.751	0.816	0.39	0.422	3.92	0.39	3.52
CC1	CC1	50,000	216	4.32	173	20.0%	43.2	3.3%		1.35	0.19	1.55	0.16	1.391	0.031	MH-1	188,000	20.0%	1.68	316	253	63			0.084	0.967	1.051	0.59	0.466	5.82	0.59	5.23
CC2	CC2	160,000	591	3.69	473	20.0%	118.2	9.0%		3.70	0.53	4.23	0.43	3.807	0.026	MH-1	0	20.0%	0.00	0	0	0			0.000	0.000	0.000	0.00	0.000	0.00	0.00	0.00
CE1		105,000	335	3.19	268	20.0%	67	5.1%		2.10	0.30	2.40	0.24	2.158	0.023	CE-1	256,000	20.0%	1.68	430	344	86			0.114	1.317	1.431	0.59	0.843	5.85	0.59	5.26
CE2		63,000	205	3.25	164	20.0%	41	3.1%		1.28	0.18	1.47	0.15	1.321	0.023	CE-2	232,000	20.0%	1.68	390	312	78			0.104	1.193	1.297	0.54	0.753	5.41	0.54	4.86
CE3		275,000	877	3.19	702	20.0%	175.4	13.3%		5.49	0.79	6.28	0.63	5.650	0.023	New Central GW	289,000	20.0%	1.68	486	388	97			0.129	1.487	1.616	0.66	0.952	6.60	0.66	5.94
CC3		161,000	594	3.69	475	20.0%	118.8	9.0%		3.72	0.54	4.25	0.43	3.827	0.026	New Central GW	0	20.0%	0.00	0	0	0			0.000	0.000	0.000	0.00	0.000	0.00	0.00	0.00
CC4		91,000	347	3.81	278	20.0%	69.4	5.3%		2.17	0.31	2.49	0.25	2.236	0.027	New Central GW	0	20.0%	0.00	0	0	0			0.000	0.000	0.000	0.00	0.000	0.00	0.00	0.00
CC5		38,000	145	3.81	116	20.0%	29.0	2.2%		0.91	0.13	1.04	0.10	0.934	0.027	New Central GW	0	20.0%	0.00	0	0	0			0.000	0.000	0.000	0.00	0.000	0.00	0.00	0.00
CC6,7,8, 9	Truck Stop 10 acres	37,000	1366	36.92	902	34.0%	464.44	35.2%		14.54	1.02	15.56	1.56	13.991	0.420	Truck Services	37,000	34.0%	EIR Rate	1,366	902	464			0.299	7.111	7.410	1.56	5.845	15.56	1.56	13.99
CN3	Truck Pkg 5 acres	0	124		82	34.0%	42.16	3.2%		1.32	0.09	1.41	0.14	1.270	0.282	Truck Parking	5	34.0%	0.00	124	82	42			0.027	0.645	0.673	0.14	0.531	1.41	0.14	1.27
CN1	CWS	206,000	284	1.38	261	8.0%	22.72	1.7%		0.71	0.29	1.01	0.10	0.904	0.005	CWS	210,000	8.0%	1.38	290	267	23			0.089	0.355	0.443	0.10	0.340	1.03	0.10	0.92
CN2	CASS	174,000	240	1.38	221	8.0%	19.2	1.5%		0.60	0.25	0.85	0.09	0.764	0.005	CASS	185,000	8.0%	1.38	255	235	20			0.078	0.313	0.391	0.09	0.300	0.90	0.09	0.81
Total OAB City Area		**1,506,000**	**5,871**		**4,551**		**1,320**	100.0%	**2,094,102**	**41.3**	**5.1**	**46.45**	**4.67**	**41.78**			**1,543,005**			**3,902**	**2,978**	**924**	**1.930**	**0.599**	**0.99**	**14.14**	**15.13**	**4.68**	**10.45**	**46.49**	**4.68**	**41.81**

OAB Port Area		Allowable building square footage	Daily Trips (cars and trucks)	Trips/KSF	Daily Car Trips	Truck Percentage	Truck Trips	Truck Trip Percent of Port Area	CalEEMod VMT	Share of 2012 Truck NOx Emissions (tons/yr)	Share of 2012 Car NOx Emisions (tons/yr)	Total 2012 NOx Emissions by Building (tons/yr)	Emissions to Achieve BAAQMD 1999 Threshold	Reductions Required per Building (tons/yr)	2012 Emissions/KSF	Site Reference 2017	Allowable Building SF	Truck Percent from EIR	ITE 9th Ed Trip Gen Rate (trips/KSF)	Current Site Plan Daily Trips (cars and trucks)	Daily Car Trips	Daily Truck Trips	Trips/KSF for CalEEMod Run Cars Only	Trips/KSF for CalEEMod Run Trucks Only	Car Emissions (tons/yr)	Truck Emissions (tons/yr.)	CalEEMod Total Emissions per Building Tons/yr	Emissions to Achieve BAAQMD 1999 Threshold (tons/yr)	Nox Reductions Required per Building (tons/yr)	Emissions Based on 2012 Rate (tons/year)	Emissions to Achieve BAAQMD 1999 Threshold (tons/yr)	Nox Reductions Required per Building (tons/yr)
PL1, PL2 PL3, PL4		130,000	495	3.81	396.0	20.00%	99	10.1%		3.10	0.45	3.55	0.36	3.189	0.027	PL1, PL2 PL3, PL4	130,000	20.0%	1.68	218.4	174.7	43.7			0.097	0.896	0.993	0.36	0.636	3.55	0.36	3.19
PL5, PL6		101,000	398	3.94	318.4	20.00%	79.6	8.1%		2.49	0.36	2.85	0.29	2.564	0.028	PL5, PL6	101,000	20.0%	1.68	169.7	135.7	33.9			0.076	0.696	0.771	0.29	0.485	2.85	0.29	2.56
PL7		303,000	1023	3.38	818.4	20.00%	204.6	20.8%		6.41	0.92	7.33	0.74	6.590	0.024	PL7	303,000	20.0%	1.68	509.0	407.2	101.8			0.227	2.087	2.314	0.74	1.577	7.33	0.74	6.59
PL8		139,000	522	3.76	417.6	20.00%	104.4	10.6%		3.27	0.47	3.74	0.38	3.363	0.027	PL8	139,000	20.0%	1.68	233.5	186.8	46.7			0.104	0.957	1.062	0.38	0.685	3.74	0.38	3.36
PL9		173,000	631	3.65	504.8	20.00%	126.2	12.8%		3.95	0.57	4.52	0.45	4.065	0.026	PL9	173,000	20.0%	1.68	290.6	232.5	58.1			0.130	1.192	1.321	0.45	0.867	4.52	0.45	4.06
PL10	Truck Pkg 7 acres	18,000	173	9.61	114.2	34.00%	58.82	6.0%		1.84	0.13	1.97	0.20	1.772	0.109	PL10	18,000	34.0%	EIR Rate	173	114.2	58.8			0.064	1.206	1.270	0.20	1.071	1.97	0.20	1.77
PL11	Truck Pkg 8 acres	18,000	198	11.00	130.7	34.00%	67.32	6.8%		2.11	0.15	2.25	0.23	2.028	0.125	PL11	18,000	34.0%	EIR Rate	198	130.7	67.3			0.073	1.380	1.453	0.23	1.226	2.25	0.23	2.03
PR1	OG TIC Railyard	155 employees	715	4.61	471.9	34.00%	243.1	24.7%		7.61	0.53	8.14	0.82	7.323	0.053	PR1	155	34.0%	EIR Rate	715	471.9	243.1			0.263	4.984	5.247	0.82	4.428	8.14	0.82	7.32
Total OAB Port		**882,000**	**4,155**		**3,172**		**983.04**	100.0%	**1,355,197**	**30.78**	**3.57**	**34.35**	**3.46**	**30.89**			**882,155**			**2507.28**	**1,853.8**	**653.5**	**2.101**	**0.741**	**1.03**	**13.40**	**14.4**	**3.46**	**10.98**	**34.35**	**3.46**	**30.89**
Total City & Port OAB		**10,026**	**7,723**		**2,303**					**72.1**	**8.7**	**80.80**	**8.13**	**72.67**												**27.54**	**29.6**	**8.13**	**21.43**	**80.84**	**8.13**	**72.71**
Total Project 2012 NOx operational emissions including trucks, cars, ships, tub boats & trains, per Table 3.3-8 of 2012 Addendum												**149.10**	**15**											**Totals**		**98.6**	**15**		**149.1**	**15**	

Used EIR Trip numbers for pads with truck parking only

Total Emissions for cars and trucks for 2012 from EIR Addendum Table 3.3-8

Daily trips from EIR Addendum

2012 Total Nox	**161.1**
2012 Truck and Car	**80.8**
2012 Other	**80.30**
VMT	**135,989**
	108,915

Existing Emissions	**12**
2012 Net Increase	**149.10**

2018 Truck and Car	**29.56**
2018 Other	**81**
2018 Total Nox	**110.56**
Existing Emissions	**12**
2018 Increase	**98.56**

	Square Feet	per KSF	Trips/Day	VMT/Year
Prologis Bldg CE-1 Project	256,136	0.31263232	80.1	135,989
Bldg CE- 1 Proj SCAQMD Trip Rate		0.233	59.7	
OARB	1,000,000	0.983	983.0	1,355,197
Gateway	1,000,000	1.320	1,319.9	2,094,102
			2,303.0	3,449,299

Used 1 million square feet to simplify the CalEEMod analysis since truck trips are known from traffic study and some land uses are based on acres.

	Miles
Average Trip Length from 2012 EIR	5

Transport Truck NOx Emissions

		NOx	PM10	PM2.5	PM2.5 ex
OARB Area		20.70	0.61	0.19	0.03
Entire Gateway Dev Area		31.73	0.94	0.30	0.05
Total Truck Emissions OARB and Gateway		**52.43**	**1.55**	**0.49**	**0.09**
Oakland Bldg 1	1.4 mile Trip Length	**1.17**	**0.01**	**0.00**	
Oakland Bldg 1	SCAQMD Trip Gen	**1.54**	**0.05**	**0.014**	**0.003**
Fraction of Total Truck Emissions EIR		**0.021**	**0.046**	**0.024**	
Fraction of Total Truck Emissions CalEEMod		0.029	0.029	0.029	
Oakland Bldg 1	ITE 8th Ed	**2.060**	**0.061**	**0.019**	**0.004**
Project Fraction of Truck Emis CalEEMod		**0.039**	**0.039**	**0.039**	
Project Fraction of Truck Emissions		**0.029**	**0.061**	**0.032**	
Project Fraction of Total Ops Emissions		**0.013**	**0.022**	**0.007**	
2012 EIR Truck Emissions		**72.10**	**1.00**	**0.60**	
2012 EIR Operational Emissions		**161.10**	**2.80**	**2.70**	

Trip Length Estimate

Distance to Waterfront	2.35
Distance to I880	0.5
Average Trip Length (50/50 split)	**1.425**

		All Trips	Truck Trips (20%)	Size (KSF)	Trips/KSF	Truck Trips/KSF
2012 EIR	CE1, CE2, CE3	1,417	283.4	443	3.1986456	0.312632322
	Entire Gateway	7,695				

CalEEMod Emissions from Site Ref 2017

	NOx Car Only	NOx Truck Only	Total
Gateway	0.99	14.14	15.13
Port Area	1.03	13.40	14.43
			29.56

Used 5 mile truck trip length from EIR

CalEEMod 2016 Trip Gen based on ITE 150 9th edition

OARB NOx Emission Analysis in Tons per Year for Transport Trucks and Passenger Vehicles Using Current Project Information

Prepared by Dave Mitchell, Mitchell Air Quality Consulting

May 11, 2021

	KSF[3]	Truck Trips (Daily)	Truck Trips/KSF[1]	Employees	Employee Trips	Emp Trips/KSF[1]	1st Op Yr Truck NOx[6]	1st Op Year Car NOx[6]	Total NOx	2024 Truck Only	2024 Car NOx	2024 Total NOx
PODS Storage Facility (CE-1) 2018[2]	256	60.0	0.234	20	40	0.156	0.85	0.01	**0.87**	0.76	0.01	**0.76**
Good Egg (CE2 2019 Half)	116	343.0	0.454	300	543		0.64	0.02	**0.66**	0.56	0.11	**0.68**
CE2 2020 Half	116	52.7	0.454		116	1.00	0.62	0.03	**0.65**	0.43	0.02	**0.45**
NCGW (CC-1) OGLC-3 2022[8]	189	143.0	0.757	100	200	0.76	0.39	0.04	**0.43**	0.34	0.03	**0.37**
NCGW (CC-1)	0	0.0	0		0	0.00	0.00	0.00	**0.00**	0.00	0.00	**0.00**
NCGW Con Global Container Storage[4]	3											
MH1 Bulk rail to Drayage Truck 2019[7]	100	45.4	0.454		100	1.00	0.57	0.03	**0.60**	0.37	0.02	**0.39**
CW-1 Bulk Terminal 2021	146	66.3	0.454		146	1.00	0.73	0.03	**0.77**	0.54	0.02	**0.56**
Total Prologis/CCIG	**926**	**710.3**			**1145**				**3.97**			**3.21**
Port Project												
Port 2019 Part 1	220	99.9	0.454		220	1.00	1.26	0.09	**1.35**	0.82	0.03	**0.85**
Port 2020 Part 2	220	99.9	0.454		220	1.00	1.18	0.05	**1.24**	0.82	0.03	**0.85**
Port 2023 Part 3	221	100.3	0.454		221	1.00	0.83	0.06	**0.89**	0.82	0.03	**0.85**
Port 2024 Part 4 (5 yr lease on existing)	221	100.3	0.454		221	1.00	0.82	0.05	**0.87**	0.82	0.03	**0.85**
Total Port OAB	**882**	**400.4**			**882**				**4.34**			**3.40**
Truck Parking 2020[5]	0	464.4			902		7.78	0.22	**8.00**	5.36	0.13	**5.49**
Truck Services 2020[5]	37	42.2			82		0.50	0.02	**0.52**	0.40	0.01	**0.42**
CWS 2020[5]	210	23.2			267		0.20	0.05	**0.24**	0.14	0.02	**0.16**
CASS 2020[5]	185	20.4			235		0.17	0.04	**0.21**	0.11	0.03	**0.14**
Total Truck Prkg & Recyclers @City's OAB		**550.2**			**1485**				**8.97**			**6.20**
Grand Total for Trucks and Passenger Vehicles		**1,661.0**			**3512**				**17.28**			**12.81**

Notes:

1. Based on ITE 10th edition trip rates for high-cube warehouses, transloading use.
2. Based on truck trip and employee data from PODS (tenant with 10-year lease) based on their operations at other sites
3. Based on Prologis actual development projections for warehouse sizes and typical leasing timing.
4. Conglobal container storage yard - truck trips are already at Port of Oakland, no new employee or trucks trips were modeled.
5. Based on 2012 Addendum trip generation numbers, not ITE rates.
6. Varies based on year building will begin operations
7. MH1 building is 100,000 SF out of 188,000 sf allowed
8. OGLC-3 provides freight services for trucks already accessing and working at the port. Analysis includes employee and onsite activities only.

Cumulative NOx Emissions in Tons per Year for Transport Trucks and Passenger Vehicles 2018 to 2024

Prepared by Dave Mitchell, Mitchell Air Quality Consulting May 11, 2021

	2018	2019	2020	2021	2022	2023	2024	2024	2012 EIR[1]	Red. need to LTS[2] in 2024	Red need to LTS[2] in 1st Op yr
CE-1 (Tenant: Pods)	0.87	0.85	0.83	0.82	0.80	0.78	0.76	0.76	0.59	0.18	0.28
CE-2 Part 1		0.66	0.66	0.66	0.84	0.76	0.68				
CE-2 Part 2			0.65	0.61	0.57	0.53	0.45	1.12	0.54	0.58	0.77
NCGW Part 1 (OGLC-3 Tenant Custom Goods)				0.49	0.46	0.43	0.36	0.41	0.66	-0.25	-0.20
NCGW Part 2 (no longer split in 2 parts)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MH-1 Bulk Silicon Pellets		0.60	0.56	0.52	0.47	0.43	0.39	0.39	0.59	-0.20	0.02
CW-1 Bulk Terminal				0.77	0.72	0.67	0.56	0.56	0.39	0.17	0.37
Totals for Gateway Projects	**0.87**	**2.11**	**2.71**	**3.87**	**3.86**	**3.59**	**3.20**	**3.25**	**2.77**	**0.48**	**1.23**
Port Area Pt 1		1.35	1.25	1.15	1.05	0.95	0.85	0.85			
Port Area Pt 2			1.24	1.14	1.04	0.95	0.85	0.85			
Port Area Pt 3						0.89	0.85	0.85			
Port Area Pt 4							0.85	0.85			
Total Port Area		**1.35**	**2.48**	**2.29**	**2.09**	**2.78**	**3.40**	**3.4**	**3.46**	**-0.06**	**0.86**
Cumulative Total Logistics Projects	**0.87**	**3.45**	**5.19**	**6.15**	**5.95**	**6.37**	**6.61**	**6.65**	**6.23**	**0.42**	**2.10**
Threshold for LTS Logistics Projects	**6.24**	**6.24**	**6.24**	**6.24**	**6.24**	**6.24**	**6.24**				
Gateway Non-Logistics Projects											
Truck Services[5]			8.00	7.37	6.74	6.12	5.49	5.49	1.56	3.92	6.43
Truck Parking[5]			0.52	0.50	0.47	0.44	0.42	0.42	0.14	0.27	0.38
CWS[5]			0.24	0.22	0.20	0.18	0.16	0.16	0.10	0.05	0.14
CASS[5]			0.21	0.19	0.17	0.16	0.14	0.14	0.09	0.05	0.12
Total for Non-Logistics Proj			**8.97**	**8.28**	**7.59**	**6.89**	**6.20**	**6.20**	**1.90**	**5.61**	**7.07**
Threshold for Non-Logistics Proj			**1.9**	**1.9**	**1.9**	**1.9**	**1.9**				
Cumulative Total Gateway and Port	**0.87**	**3.45**	**14.16**	**14.43**	**13.53**	**13.27**	**12.81**	**12.85**	**8.13**	**6.03**	**9.16**
Threshold for Trucks and Cars	**8.14**	**8.14**	**8.14**	**8.14**	**8.14**	**8.14**	**8.14**				

Notes:

1.2012 EIR -Nox Emissions per Building calculated using 2012 Oakland Army Base Project Initial Study/Addendum

2. LTS = Less than Significant

Comparison of EMFAC 2017 Emission Factors for Specfic Model Years and Aggregated Fleets

		NOx Running Emissions (g/mile)	NOx Idling Emissions (g/veh/day)	NOx Starting Emission (g/trip)	
T7 Tractor Aggregated Model Years	2018	**5.90**	28.85	0.98	Average Emissions all Ages in 2018 Fleet
T7 Tractor Aggregated Model Years	2020	**4.58**	27.55	1.23	Average Emissions all Ages in 2020 Fleet
T7 Tractor Aggregated Model Years	2024	**2.02**	22.21	1.86	Average Emissions all Ages in 2024 Fleet
T7 Tractor 2007 Model Year Only	2007	**10.58**	30.46	0.00	Emissions from 2007 Model Year Trucks
T7 Tractor 2010 Model Year Only	2010	**7.61**	33.23	0.26	Emissions from 2010 Model Year Trucks

The average truck in 2018 is cleaner than trucks of the 2007 model year	0.44182925	**44.10%**
The average truck in 2018 is cleaner than trucks of the 2010 model year	0.17094232	**17.10%**

Emission factors from ARB EMFAC 2017 Web Database

Trip Generation Rates from SCAQMD for High Cube Warehouse (New ITE 10th Edition)

	Weighted Avg Daily Trips per KSF				
	All Veh.	**Cars**	**All Trucks**	**5 Axle+ Trucks**	**Trucks less than 5 axle**
Transload & Short Term Storage	1.432	1.000	0.454	0.233	0.221
Truck Services (Trips/Day)	1366	902	464.4	0.5132	0.4868
37,000 sf building area		24.37	12.55		

OGLC 3 Cold Storage Building

Project Information

Building Size (Sq Ft)	189,038	189.038	KSF
	142.86		

		Trips/day	Round Trips
Port Drayage Trucks	60-70 Round Trips 5 days per week	140	70
Over the Road Non Drayage	45 loads/day 5 days per week	90	45
Refrigerated Trucks	40%		
Port trucks meet Clean Truck Standard			
Employees	1st Shift	2nd Shift	
	40 to 60	30 to 40	
Employee Commute Estimate	100/day		
Onsite Equipment			
Forklifts	10 6k Elec	2 12k Elec	1 35k Diesel 2 Diesel Yard Hostlers
Warehouse Cooling	Freon		
Distance to Nearest Receptor	2,300	Feet	

Expected 2022 Maritime Deliveries

Avg Daily Pos	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Weekly	ADD	AADT	Fleet Fraction	
Drayage	70	70	70	70	70	0	0	**350**	50.00	100.00	0.609	HHD Drayage POAK
T7 Tractor	45	45	45	45	45	0	0	**225**	32.14	64.29	0.391	HHD T7 Tractor
	115							**575**	**82.14**	164.29	1.000	

Employee Count	100		
Employee Trips/Day	2		
Trips/Weekday	200		
Days per Week	5	260	Days/Year
AADT	142.86		
Trips/KSF	0.756		
Trips per KSF Truck and Emp	1.62		

Fleet Mix for Single CalEEMod Run

	2022		LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Default Fleet Mix Alameda County		Refrigerated W	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.0452	0.002184	0.002561	0.005524	0.000326	0.000721
												0.002561	0.005524	0.000326	0.000721

	LDA	LDT1	LDT2	MDV	Total
Employee Passenger Vehicle Fleet Fraction	0.560371	0.039285	0.190378	0.108244	0.898278
Trips/Day	89.12	6.25	30.28	17.21	142.86
CalEEMod Fleet Mix Emp Only					

2012 Addendum Nox Emissions

	Miles/Trip	Trips/day	Miles	G/Mi	g/day	g/lb	lbs/day	Ton/year
Trucks	7.8	1438	11216.4	7.66	85917.624	453.592	189.416092	24.624092

lbs/day	189.4
g/mi	7.66
g/day	85,910
mi/day	11,215
Trips	1438
mi/trip	7.80

	Truck Fleet Mix for CalEEMod Run
	HHD
Truck ADT	164.29
Fleet Fraction for CalEEMod	1

	Passenger Vehicle Fleet Mix				
	LDA	LDT1	LDT2	MDV	
Default Leet Mix	0.560371	0.039285	0.190378	0.108244	0.898278
Employee Trips	89.12	6.25	30.28	17.21	142.86
Fleet Fraction	0.623828035	0.04373368	0.211936617	0.120501671	1

Idling Emissions Semis and Drayage T7 Trucks

	2022		Days/Year	Vehicle Type	Trucks/Day	Fuel	NOX (g/day/truck)	Nox (g/year)	NOx (lb/Year)	Nox (Tons/Year)	PM10 (g/day)	PM10 g/year)	PM10 (lbs/year)	PM10 (Tons/year)
Idling Emissions Grams/Day Drayage			260	T7 Drayage	70	Diesel	43.28	787,747.87	1,736.68	0.8683	0.0145	264.45	0.5830	0.0003
Idling Emissions Grams/day OTR			260	T7 Tractor	45	Diesel	25.76	75,355.63	166.13	0.0831	0.0039	45.09	0.0994	0.0000
Idling per T7 Tractor vehicle per day (fraction)		0.25	Assumed 1/4 of daily idling occurs onsite for T7 Trucks					**863,103.50**	**1,902.82**	**0.9514**		**309.53**	**0.6824**	**0.0003**
Drayage Truck Idling 50% at Port 50% onsite		1												
convert grams to pounds		0.00220462												

	2022	Trucks/Day	Idling Min/Truck	Nox Emissios (g/yr)	Nox Emissions Lbs/Year	Nox Emissions Tons/Year	PM Emissions g/Year	PM Emissions lbs/year	PM Emissions Tons/Year	Nox Emission Reduction Idling (tons/yr)	
Compliance with ARB Idling Reg		115.00	5	863,103.50	1902.82	0.95	309.53	0.682	**0.0003**	0.52	Drayage
AQ Plan Measure		115	2	345,241.40	761.13	0.38	123.81	0.273	**0.0001**	0.05	T7
Emission Reduction					1141.69	0.57		0.41	**0.0002**	0.57	Total
Reduction Fraction					0.60			0.60			
convert grams to pounds		0.00220462									

Emission Factors from EMFAC 2017

	2022	Nox (tons/year)	PM (tons/year)
Drayage Truck Idling at Port		0.4342	0.0001
T7 Truck Idling at Port		0.0000	0.0000
Total		**0.4342**	**0.0001**

	2022	Nox (tons/year)	PM (tons/year)
Drayage Truck Idling at OGLC-3		0.4342	0.0001
T7 Truck Idling at OGLC-3		**0.0831**	0.0000
Total		**0.5172**	0.0002

	Drayage (g/day)	Reduction	T7 (g/day)	Reduction
2024 Nox	30.98	0.28	22.21	0.78
2024 PM10	0.01	0.23	0.01	0.48

	2024		Days/Year	Vehicle Type	Trucks/Day	Fuel	NOX (g/day/truck)	Nox (g/year)	NOx (lb/Year)	Nox (Tons/Year)	PM10 (g/day)	PM10 (g/year)	PM10 (lbs/year)	PM10 (Tons/year)
Idling Emissions Grams/Day Drayage			260	T7 Drayage	**70**	**Diesel**	**30.9810**	563,854.85	1,243.09	0.6215	0.0112	203.07	0.4477	0.0002
Idling Emissions Grams/day OTR			260	T7 Tractor	**45**	**Diesel**	**22.2116**	64,968.92	143.23	0.0716	0.0080	93.59	0.2063	0.0001
Idling per T7 Tractor vehicle per day (fraction)		0.25	Assumed 1/4 of daily idling occurs onsite for T7 Trucks					**628,823.77**	**1,386.32**	**0.6932**		**296.66**	**0.6540**	**0.0003**
Drayage Truck Idling 100% onsite		1	50% drayage truck idling occurs onsite 50% at Port											
convert grams to pounds		0.00220462												

	2024	Trucks/Day	Idling Min/Truck	Idling Hrs/Yr	Nox Emissions (g/yr)	Nox Emissions Lbs/Year	Nox Emissions Tons/Year	PM Emissions g/Year	PM Emissions lbs/year	PM Emissions Tons/Year	Nox Emission Reduction Idling (tons/yr)	
Compliance with ARB Idling Reg		115	5	2491.67	628,823.77	1386.32	0.69	**296.6634**	0.654	**0.0003**	0.37	Drayage
AQ Plan Measure		115	2	996.67	251,529.51	554.53	0.28	118.67	0.262	**0.0001**	0.04	T7
Emission Reduction						831.79	0.42		0.39	**0.0002**	0.42	Total
Reduction Fraction						0.60			0.60			

	2024	Nox (tons/year)	PM (tons/year)
Drayage Truck Idling at Port		0.3108	0.0001
T7 Truck Idling at Port		0.0000	0.0000
Total		**0.3108**	**0.0001**

	2024	Nox (tons/year)	PM (tons/year)
Drayage Truck Idling at OGLC-3		0.3108	0.0001
T7 Truck Idling at OGLC-3		**0.0716**	0.0001
Total		**0.3824**	0.0002

TRU Emissions Estimates

Diesel Semi Truck TRU Assumptions

Average HP	36			
Average On Time	50%			
Load Factor (ARB Offroad TRU)	0.46			
			2015 MY	2020 MY
ARB PM Standard with ATCM Compliance	0.02	g/bhp-hr		
ARB Nox Emission Factor for TRU 2010 MY	4.43	g/bhp-hr	3.08	2.7
Emission factors from ARB Offroad Emission Tool.				
CalEEMod Default Trip Length	7.3	miles		
Average Speed over Travel Distance	30	MPH		
Time required for 7.3 miles (hrs)	0.243			
ADT for HHDT 2022	164.29			
ADT for Trucks with TRUs (40%)	65.71			

On Road PM	PM (grams/day	PM (lbs/day)	PM lbs/year	PM (tons/year)
Semi TRU PM Emissions 2022	2.648	0.006	1.518	0.001

convert grams to pounds	0.00220462

PM Emission Calc Formula = HP*% Time Running*load factor*emission factor*hours/trip*avg daily Trips

On Road Nox	NOx (grams/day	NOx (lbs/day)	NOx lbs/year	NOx (tons/year)
Semi TRU NOx Emissions 2022	586.537	1.293	336.204	0.168

TRU Onsite Emissions

	2022	Trucks	Trucks w/TRU	TRU Op Time Per Load	Truck Time at Loading Dock (hours/day)	Total TRU Op Time (hrs/day)
HDT Trucks Per Day		115	46	0.5	1	23.00

40% of HDT trucks have TRUs

One hour parked at loading dock per truck
50% TRU Operating Time

PM Emission Calc Formula = HP*% Time Running*load factor*emission factor*hours/trip*avg daily Trips

On Site PM	PM (grams/day	PM (lbs/day)	PM lbs/year	PM (tons/year)
Semi TRU PM Emissions 2022 Unmitigated	3.809	0.008	2.183	0.001
Semi TRU PM Emissions 2022 Mitigated	1.524	0.003	0.873	0.000
convert grams to pounds	0.00220462			

TRUs with plug in capability can plug in at loading dock

On Site Nox	NOx (grams/day	NOx (lbs/day)	NOx lbs/year	NOx (tons/year)
Semi TRU Nox Emissions 2022 Unmitigated	843.649	1.860	483.581	0.242
Semi TRU Nox Emissions 2022 Mitigated	337.460	0.744	193.432	0.097

Phase in schedule for TRUs meeting the ARB TRU ATCM

Table II-3: ≥25 HP TRU and TRU Gen Set Engines
Proposed In-Use Compliance Dates for In-Use Standards

Engine MY	In-Use Compliance Year													
	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20
'01 & Older		L	L	L	L	L	L	L	U	U	U	U	U	U
'02			L	L	L	L	L	L	L	U	U	U	U	U
'03				U or L	U or L	U or L	U or L	U or L	U or L	U or L	U	U	U	U
'04					U	U	U	U	U	U	U	U	U	U
'05						U	U	U	U	U	U	U	U	U
'06							U	U	U	U	U	U	U	U
'07								U	U	U	U	U	U	U
'08									U	U	U	U	U	U
'09										U	U	U	U	U
'10'											U	U	U	U
'11												U	U	U
'12													U	U
'13														U

ARB Initial Statement of Reasons for TRU ATCM 2010
U = Ultralow Emissions Standard of 0.02 g/bhp-hr

TRU Emissions Summary

2022 Emissions	PM (lbs/year)	PM (tons/year)	NOx (lbs/year)	NOx (tons/year)
On Road Use Semis	1.518	0.001	336.2	0.168
On Site Use Semis	0.873	0.000	483.6	0.242
Total On Road and On Site 2022	**2.391**	**0.001**	**819.8**	**0.410**

TRU Onsite Mitigation with Electric Plug Ins

	2022
Semi TRUs with Plug-In Capability	60%
Semi Trucks with TRUs	40%
Semi Trucks per Day 2022	115
Semi Trucks with TRUs	46
Semi Trucks with Plug In TRUs	27.6
Percent Reduction from Plug In	60%

Onsite TRU Emission Reductions

	PM lbs/year Unmitigated	PM lbs/year Mitigated	PM tons/year Mitigated	NOx lbs/year Unmitigated	NOx lbs/year Mitigated	Nox tons/year Mitigated
2022 Semi Trucks	2.183	0.87	0.0004	483.6	193.43	0.0967
Emission Reduction		1.31	0.0007		290.15	0.1451

Yard Truck (Hostler) Emissions	**Emission Rates g/bhp-hr**		
ARB Offroad Emission Factors	**2010**	**2015**	**2020**
Nox	2.66	0.64	0.12
PM	0.1	0.03	0.01
Total Hydrocarbon (THC)	0.17	0.08	0.06
Load Factor	0.39		

Emission Calculations

	Trucks	Hours/Year	Load Factor	Horsepower	Nox (g/year)	PM (g/year)	THC (g/year)
2015 Yard Hostler Emissions	2	500	0.39	200	49920	2340	6240

Nox (lbs/year)	PM (lbs/year)	THC (lbs/year)
110.0546	5.1588	13.7568

Nox (tons/year)	PM (tons/year)	(tons/year)
0.0550	0.0026	0.0069

convert grams to pounds	0.00220462

Estimated 2 hours/day of operation for each Hostler
Emission factors from ARB's Offroad Emission Calculator Tool

Diesel Forklift Emissions
Forklift with 35,000 lb lift capacity
Example Equipment: CAT DP 160N1 Diesel Forkift 16,000kg (35,274 lb) Capacity
129 kW (172 HP)

Offroad Emission Factors for Forklifts

	ROG	Nox	PM10	PM2.5
Emission Factor g/bhp-hr 121-175 HP	0.14	0.5	0.02	0.02
HP	172			
Load Factor	0.2			
Hours of Operation/Day	7			
Days/Year	260			
Convert g/lbs	0.00220462			

Emission factors are from the CalEEMod 2016.3.2 User Guide Appendix E

Forklift Emissions Results	**ROG**	**Nox**	**PM10**	**PM2.5**
Emissions (pounds per day)	0.0743	0.2654	0.0106	0.0106
Emissions (pounds/year)	19.3238	69.0134	2.7605	2.7605
Emissions (tons/year)	0.0097	0.0345	0.0014	0.0014

Total Forklift and Hostler Emissions	**ROG**	**Nox**	**PM10**	**PM2.5**
Emissions (tons/year)	0.0165	0.0895	0.0040	0.0040
Emissions (pounds/year	33.0806	179.0681	7.9193	7.9193

Onsite Emission Summary

Onsite Emissions 2022 Unmitigated

	ROG	NOX	PM10	PM2.5
			Tons/Year	
POAK Drayage Trucks Idling	0.0000	0.4342	0.0001	0.0001
T7 Tractor Idling	0.0000	0.0831	0.0000	0.0000
TRU Ops Onsite	0.0000	0.2418	0.0004	0.0004
Yard Hostlers and Forklift	0.0165	0.0895	0.0040	0.0040
Employee Commute	0.0283	0.0401	0.1535	0.0414
Total Onsite Emissions	**0.0448**	**0.8887**	**0.1581**	**0.0460**

Onsite Emissions 2022 Mitigated

	ROG	NOX	PM10	PM2.5
			Tons/Year	
POAK Drayage Trucks Idling	0.0000	0.1737	0.0001	0.0001
T7 Tractor Idling	0.0000	0.0332	0.0000	0.0000
TRU Ops Onsite	0.0000	0.0967	0.0002	0.0002
Yard Hostlers and Forklift	0.0165	0.0895	0.0040	0.0040
Employee Commute	0.0283	0.0401	0.1535	0.0414
Total Onsite Emissions	**0.0448**	**0.4332**	**0.1577**	**0.0456**

Onsite Emissions 2024 Unmitigated

	ROG	NOX	PM10	PM2.5
			Tons/Year	
POAK Drayage Trucks Idling	0.0000	0.3108	0.0001	0.0001
T7 Tractor Idling	0.0000	0.0716	0.0001	0.0001
TRU Ops Onsite	0.0000	0.2418	0.0004	0.0004
Yard Hostlers and Forklift	0.0165	0.0895	0.0040	0.0040
Employee Commute	0.0240	0.0325	0.1534	0.0414
Total Onsite Emissions	**0.0405**	**0.7462**	**0.1580**	**0.0460**

Onsite Emissions 2024 Mitigated

	ROG	NOX	PM10	PM2.5
			Tons/Year	
POAK Drayage Trucks Idling	0.0000	0.1243	0.0000	0.0000
T7 Tractor Idling	0.0000	0.0286	0.0000	0.0000
TRU Ops Onsite	0.0000	0.0967	0.0002	0.0002
Yard Hostlers and Forklift	0.0165	0.0895	0.0040	0.0040
Employee Commute	0.0240	0.0325	0.1534	0.0414
Total Onsite Emissions	**0.0405**	**0.3717**	**0.1576**	**0.0456**

OGLC-3 Criteria Pollutant Modeling Results

Unmitigated Existing Plus Project

2022	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks	0.03	1.91	0.01	0.00
T7 Tractor Trucks	0.05	1.37	0.09	0.03
TRU	0.00	0.76	0.00	0.00
Yard Hostlers and Forklift	0.02	0.23	0.01	0.01
Employee Commute	0.03	0.04	0.15	0.04
Total	**0.13**	**4.30**	**0.27**	**0.09**

Note: PM2.5 and PM10 results inlcude fugitive dust

Mitigated Existing Plus Project

2022	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks	0.03	1.39	0.01	0.00
T7 Tractor Trucks	0.05	1.32	0.09	0.03
TRU	0.00	0.61	0.00	0.00
Yard Hostlers and Forklift	0.02	0.23	0.01	0.01
Employee Commute	0.03	0.04	0.15	0.04
Total	**0.13**	**3.58**	**0.27**	**0.09**

Idling Mitigation Measure to Reduce idling from 5 to 2 min 60%

Nox Emission Reduction Idling (tons/yr)		**TRU Nox Reduction (tons/yr)**	**TRU PM10 Reduction**
0.52	Drayage	0.15	0.000655
0.05	T7		
0.57	Total		

Unmitigated Existing Plus Project

2024	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks	0.02	1.40	0.01	0.00
T7 Tractor Trucks	0.04	1.07	0.09	0.03
TRU	0.00	0.76	0.00	0.00
Yard Hostlers and Forklift	0.02	0.23	0.01	0.01
Employee Commute	0.02	0.03	0.15	0.04
Total	**0.10**	**3.48**	**0.27**	**0.09**

Note: PM2.5 and PM10 results inlcude fugitive dust

Mitigated Existing Plus Project

2024	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks	0.02	1.02	0.01	0.00
T7 Tractor Trucks	0.04	0.90	0.09	0.03
TRU	0.00	0.61	0.00	0.00
Yard Hostlers and Forklift	0.02	0.23	0.01	0.01
Employee Commute	0.02	0.03	0.15	0.04
Total	**0.10**	**2.79**	**0.27**	**0.09**

Nox Emission Reduction Idling (tons/yr)		**TRU Nox Reduction (tons/yr)**	**TRU PM10 Reduction**
0.37	Drayage	0.15	0.000655
0.17	T7		
0.54	Total		

Project Onsite Emissions
Unmitigated

2022	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks Idling	0.00	0.43	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.08	0.00	0.00
TRU Onsite	0.00	0.24	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.03	0.04	0.15	0.04
Total	**0.04**	**0.89**	**0.16**	**0.05**

Note: PM2.5 and PM10 results inlcude fugitive dust

Mitigated

2022	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks Idling	0.00	0.17	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.03	0.00	0.00
TRU Onsite	0.00	0.10	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.03	0.04	0.15	0.04
Total	**0.04**	**0.43**	**0.16**	**0.05**

Idling Mitigation Measure to Reduce idling from 5 to 2 min 60%

Project Onsite Emissions
Unmitigated

2024	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks Idling	0.00	0.31	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.07	0.00	0.00
TRU Onsite	0.00	0.24	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.02	0.03	0.15	0.04
Total	**0.04**	**0.75**	**0.16**	**0.05**

Mitigated

2024	Tons/Year			
Operational Emissions	**ROG**	**NOX**	**PM10**	**PM2.5**
Drayage Trucks Idling	0.00	0.12	0.00	0.00
T7 Tractor Trucks Idling	0.00	0.03	0.00	0.00
TRU Onsite	0.00	0.10	0.00	0.00
Yard Hostlers and Forklift	0.02	0.09	0.00	0.00
Employee Commute	0.02	0.03	0.15	0.04
Total	**0.04**	**0.37**	**0.16**	**0.05**

OGLC Bldg 3 Employee Travel

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Operations Only

Construction Phase -

Off-road Equipment - Ops only.

Vehicle Trips - 142.86 100 employees 5 days per week

Fleet Mix - Employee passenger vehicles and light trucks only.

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.56	0.62
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00
tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	1.68	142.86
tblVehicleTrips	SU_TR	1.68	142.86
tblVehicleTrips	WD_TR	1.68	142.86

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	5.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**	**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

	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	5.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0283	0.0401	0.4173	1.4400e-003	0.1525	9.7000e-004	0.1535	0.0405	8.9000e-004	0.0414	0.0000	130.6364	130.6364	2.7700e-003	0.0000	130.7057
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0328**	**0.0410**	**0.4181**	**1.4500e-003**	**0.1525**	**1.0400e-003**	**0.1535**	**0.0405**	**9.6000e-004**	**0.0415**	**0.2642**	**138.8769**	**139.1411**	**0.0219**	**2.6000e-004**	**139.7678**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0283	0.0401	0.4173	1.4400e-003	0.1525	9.7000e-004	0.1535	0.0405	8.9000e-004	0.0414	0.0000	130.6364	130.6364	2.7700e-003	0.0000	130.7057
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0328**	**0.0410**	**0.4181**	**1.4500e-003**	**0.1525**	**1.0400e-003**	**0.1535**	**0.0405**	**9.6000e-004**	**0.0415**	**0.2642**	**138.8769**	**139.1411**	**0.0219**	**2.6000e-004**	**139.7678**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0283	0.0401	0.4173	1.4400e-003	0.1525	9.7000e-004	0.1535	0.0405	8.9000e-004	0.0414	0.0000	130.6364	130.6364	2.7700e-003	0.0000	130.7057
Unmitigated	0.0283	0.0401	0.4173	1.4400e-003	0.1525	9.7000e-004	0.1535	0.0405	8.9000e-004	0.0414	0.0000	130.6364	130.6364	2.7700e-003	0.0000	130.7057

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	142.86	142.86	142.86	417,081	417,081
Total	142.86	142.86	142.86	417,081	417,081

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
Refrigerated 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
Refrigerated Warehouse-No Rail	0.623830	0.043730	0.211937	0.121194	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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

OGLC Bldg 3 Employee Travel

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Operations Only

Construction Phase -

Off-road Equipment - Ops only.

Vehicle Trips - 142.86 100 employees 5 days per week

Fleet Mix - Employee passenger vehicles and light trucks only.

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	0.00
tblFleetMix	LDA	0.56	0.62
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.1570e-003	0.00
tblFleetMix	MCY	5.4600e-003	0.00
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MH	6.9000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.2210e-003	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	2.3580e-003	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	1.68	142.86
tblVehicleTrips	SU_TR	1.68	142.86
tblVehicleTrips	WD_TR	1.68	142.86

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	5.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**	**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

	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	5.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0240	0.0325	0.3551	1.3300e-003	0.1525	9.4000e-004	0.1534	0.0405	8.6000e-004	0.0414	0.0000	120.6716	120.6716	2.2400e-003	0.0000	120.7276
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0285**	**0.0334**	**0.3558**	**1.3400e-003**	**0.1525**	**1.0100e-003**	**0.1535**	**0.0405**	**9.3000e-004**	**0.0415**	**0.2642**	**128.9120**	**129.1762**	**0.0214**	**2.6000e-004**	**129.7898**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0240	0.0325	0.3551	1.3300e-003	0.1525	9.4000e-004	0.1534	0.0405	8.6000e-004	0.0414	0.0000	120.6716	120.6716	2.2400e-003	0.0000	120.7276
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0285**	**0.0334**	**0.3558**	**1.3400e-003**	**0.1525**	**1.0100e-003**	**0.1535**	**0.0405**	**9.3000e-004**	**0.0415**	**0.2642**	**128.9120**	**129.1762**	**0.0214**	**2.6000e-004**	**129.7898**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2100e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0240	0.0325	0.3551	1.3300e-003	0.1525	9.4000e-004	0.1534	0.0405	8.6000e-004	0.0414	0.0000	120.6716	120.6716	2.2400e-003	0.0000	120.7276
Unmitigated	0.0240	0.0325	0.3551	1.3300e-003	0.1525	9.4000e-004	0.1534	0.0405	8.6000e-004	0.0414	0.0000	120.6716	120.6716	2.2400e-003	0.0000	120.7276

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	142.86	142.86	142.86	417,081	417,081
Total	142.86	142.86	142.86	417,081	417,081

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
Refrigerated 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
Refrigerated Warehouse-No Rail	0.623830	0.043730	0.211937	0.121194	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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

OGLC 3 Drayage Trucks 2022

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Truck only run

Construction Phase -

Vehicle Trips - 70 trucks/140 trips per day for Port Drayage

Fleet Mix - Drayage Truck Only

Vehicle Emission Factors - EMFAC 2017 Emission Factors for NOx, PM10, and PM2.5

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00
tblFleetMix	LDA	0.56	0.00

tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00
tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblVehicleEF	HHD	20.78	43.28
tblVehicleEF	HHD	3.57	6.40
tblVehicleEF	HHD	20.10	1.14
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.04
tblVehicleEF	HHD	5.1000e-005	0.00
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	9.0000e-003
tblVehicleEF	HHD	0.01	0.04
tblVehicleEF	HHD	4.7000e-005	0.00
tblVehicleTrips	CC_TL	7.30	0.50
tblVehicleTrips	CNW_TL	7.30	0.50
tblVehicleTrips	CW_TL	9.50	0.50

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	140.00

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0316	1.9085	0.2023	2.1800e-003	7.7200e-003	1.3200e-003	9.0400e-003	2.1200e-003	1.2600e-003	3.3900e-003	0.0000	210.0700	210.0700	0.0353	0.0000	210.9516
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0361**	**1.9094**	**0.2030**	**2.1900e-003**	**7.7200e-003**	**1.3900e-003**	**9.1100e-003**	**2.1200e-003**	**1.3300e-003**	**3.4600e-003**	**0.2642**	**218.3104**	**218.5746**	**0.0544**	**2.6000e-004**	**220.0137**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0316	1.9085	0.2023	2.1800e-003	7.7200e-003	1.3200e-003	9.0400e-003	2.1200e-003	1.2600e-003	3.3900e-003	0.0000	210.0700	210.0700	0.0353	0.0000	210.9516
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0361**	**1.9094**	**0.2030**	**2.1900e-003**	**7.7200e-003**	**1.3900e-003**	**9.1100e-003**	**2.1200e-003**	**1.3300e-003**	**3.4600e-003**	**0.2642**	**218.3104**	**218.5746**	**0.0544**	**2.6000e-004**	**220.0137**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

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

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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**

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	0.0316	1.9085	0.2023	2.1800e-003	7.7200e-003	1.3200e-003	9.0400e-003	2.1200e-003	1.2600e-003	3.3900e-003	0.0000	210.0700	210.0700	0.0353	0.0000	210.9516
Unmitigated	0.0316	1.9085	0.2023	2.1800e-003	7.7200e-003	1.3200e-003	9.0400e-003	2.1200e-003	1.2600e-003	3.3900e-003	0.0000	210.0700	210.0700	0.0353	0.0000	210.9516

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	140.00	0.00	0.00	18,200	18,200
Total	140.00	0.00	0.00	18,200	18,200

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
Refrigerated Warehouse-No	0.50	0.50	0.50	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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

OGLC 3 Drayage Trucks 2022

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Truck only run

Construction Phase -

Vehicle Trips - 70 trucks/140 trips per day for Port Drayage

Vehicle Emission Factors - EMFAC 2017 Emission Factors for NOx, PM10, and PM2.5

Fleet Mix - Drayage Truck Only

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00
tblFleetMix	LDA	0.56	0.00

tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.1570e-003	0.00
tblFleetMix	MCY	5.4600e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	6.9000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.2210e-003	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	2.3580e-003	0.00
tblVehicleEF	HHD	14.17	30.98
tblVehicleEF	HHD	1.99	4.16
tblVehicleEF	HHD	20.08	1.76
tblVehicleEF	HHD	5.8810e-003	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.0910e-003	0.02
tblVehicleEF	HHD	5.1000e-005	0.00
tblVehicleEF	HHD	5.6260e-003	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8990e-003	9.0000e-003
tblVehicleEF	HHD	5.8270e-003	0.02
tblVehicleEF	HHD	4.7000e-005	0.00
tblVehicleTrips	CC_TL	7.30	0.50
tblVehicleTrips	CNW_TL	7.30	0.50
tblVehicleTrips	CW_TL	9.50	0.50

tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	140.00

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0210	1.3957	0.1615	2.0600e-003	7.7200e-003	7.9000e-004	8.5000e-003	2.1200e-003	7.5000e-004	2.8800e-003	0.0000	198.5925	198.5925	0.0257	0.0000	199.2361
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0256**	**1.3966**	**0.1622**	**2.0700e-003**	**7.7200e-003**	**8.6000e-004**	**8.5700e-003**	**2.1200e-003**	**8.2000e-004**	**2.9500e-003**	**0.2642**	**206.8330**	**207.0971**	**0.0449**	**2.6000e-004**	**208.2982**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0210	1.3957	0.1615	2.0600e-003	7.7200e-003	7.9000e-004	8.5000e-003	2.1200e-003	7.5000e-004	2.8800e-003	0.0000	198.5925	198.5925	0.0257	0.0000	199.2361
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0256**	**1.3966**	**0.1622**	**2.0700e-003**	**7.7200e-003**	**8.6000e-004**	**8.5700e-003**	**2.1200e-003**	**8.2000e-004**	**2.9500e-003**	**0.2642**	**206.8330**	**207.0971**	**0.0449**	**2.6000e-004**	**208.2982**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

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

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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**

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	0.0210	1.3957	0.1615	2.0600e-003	7.7200e-003	7.9000e-004	8.5000e-003	2.1200e-003	7.5000e-004	2.8800e-003	0.0000	198.5925	198.5925	0.0257	0.0000	199.2361
Unmitigated	0.0210	1.3957	0.1615	2.0600e-003	7.7200e-003	7.9000e-004	8.5000e-003	2.1200e-003	7.5000e-004	2.8800e-003	0.0000	198.5925	198.5925	0.0257	0.0000	199.2361

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	140.00	0.00	0.00	18,200	18,200
Total	140.00	0.00	0.00	18,200	18,200

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
Refrigerated Warehouse-No	0.50	0.50	0.50	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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

OGLC 3 T7 Tractor Trucks 2022

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Truck only run

Construction Phase -

Vehicle Trips - 45 trucks/90 trips per day for T7 Tractors

Vehicle Emission Factors - EMFAC 2017 Emission Factors for NOx, PM10, and PM2.5

Fleet Mix - Drayage Truck Only

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00
tblFleetMix	LDA	0.56	0.00

tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2020e-003	0.00
tblFleetMix	MCY	5.5240e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.2100e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.1840e-003	0.00
tblFleetMix	SBUS	3.2600e-004	0.00
tblFleetMix	UBUS	2.5610e-003	0.00
tblVehicleEF	HHD	20.78	25.76
tblVehicleEF	HHD	3.57	2.99
tblVehicleEF	HHD	20.10	1.56
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.04
tblVehicleEF	HHD	5.1000e-005	0.00
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8950e-003	9.0000e-003
tblVehicleEF	HHD	0.01	0.04
tblVehicleEF	HHD	4.7000e-005	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00

tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	90.00

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0484	1.3654	0.3118	4.5500e-003	0.0853	9.2900e-003	0.0946	0.0235	8.8900e-003	0.0324	0.0000	439.4675	439.4675	0.0309	0.0000	440.2391
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0529**	**1.3663**	**0.3126**	**4.5600e-003**	**0.0853**	**9.3600e-003**	**0.0947**	**0.0235**	**8.9600e-003**	**0.0324**	**0.2642**	**447.7080**	**447.9722**	**0.0500**	**2.6000e-004**	**449.3012**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0484	1.3654	0.3118	4.5500e-003	0.0853	9.2900e-003	0.0946	0.0235	8.8900e-003	0.0324	0.0000	439.4675	439.4675	0.0309	0.0000	440.2391
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0529**	**1.3663**	**0.3126**	**4.5600e-003**	**0.0853**	**9.3600e-003**	**0.0947**	**0.0235**	**8.9600e-003**	**0.0324**	**0.2642**	**447.7080**	**447.9722**	**0.0500**	**2.6000e-004**	**449.3012**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

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

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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**

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	0.0484	1.3654	0.3118	4.5500e-003	0.0853	9.2900e-003	0.0946	0.0235	8.8900e-003	0.0324	0.0000	439.4675	439.4675	0.0309	0.0000	440.2391
Unmitigated	0.0484	1.3654	0.3118	4.5500e-003	0.0853	9.2900e-003	0.0946	0.0235	8.8900e-003	0.0324	0.0000	439.4675	439.4675	0.0309	0.0000	440.2391

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	90.00	0.00	0.00	201,193	201,193
Total	90.00	0.00	0.00	201,193	201,193

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
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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

OGLC 3 T7 Tractor Trucks 2024

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Truck only run

Construction Phase -

Vehicle Trips - 45 trucks/90 trips per day for T7 Tractors

Vehicle Emission Factors - EMFAC 2017 Emission Factors for NOx, PM10, and PM2.5

Fleet Mix - T70 Truck Only

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.05	1.00
tblFleetMix	LDA	0.56	0.00

tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.1570e-003	0.00
tblFleetMix	MCY	5.4600e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	6.9000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.2210e-003	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	2.3580e-003	0.00
tblVehicleEF	HHD	14.17	22.21
tblVehicleEF	HHD	1.99	2.02
tblVehicleEF	HHD	20.08	1.86
tblVehicleEF	HHD	5.8810e-003	7.9990e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.0910e-003	0.03
tblVehicleEF	HHD	5.1000e-005	0.00
tblVehicleEF	HHD	5.6260e-003	7.6530e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8990e-003	9.0000e-003
tblVehicleEF	HHD	5.8270e-003	0.03
tblVehicleEF	HHD	4.7000e-005	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00

tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	90.00

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	5.7600e-003	3.8200e-003	4.5400e-003	1.0000e-005	0.0000	2.4000e-004	2.4000e-004	0.0000	2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0322	1.0682	0.2672	4.3300e-003	0.0853	6.4900e-003	0.0918	0.0235	6.2100e-003	0.0297	0.0000	418.7850	418.7850	0.0245	0.0000	419.3964
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0367**	**1.0691**	**0.2679**	**4.3400e-003**	**0.0853**	**6.5600e-003**	**0.0919**	**0.0235**	**6.2800e-003**	**0.0298**	**0.2642**	**427.0255**	**427.2896**	**0.0436**	**2.6000e-004**	**428.4586**

2.2 Overall Operational

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	7.8764	7.8764	3.3000e-004	8.0000e-005	7.9092
Mobile	0.0322	1.0682	0.2672	4.3300e-003	0.0853	6.4900e-003	0.0918	0.0235	6.2100e-003	0.0297	0.0000	418.7850	418.7850	0.0245	0.0000	419.3964
Waste						0.0000	0.0000		0.0000	0.0000	0.1908	0.0000	0.1908	0.0113	0.0000	0.4727
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.3640	0.4374	7.5500e-003	1.8000e-004	0.6802
Total	**0.0367**	**1.0691**	**0.2679**	**4.3400e-003**	**0.0853**	**6.5600e-003**	**0.0919**	**0.0235**	**6.2800e-003**	**0.0298**	**0.2642**	**427.0255**	**427.2896**	**0.0436**	**2.6000e-004**	**428.4586**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/21/2021	10/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

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

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 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					
Archit. Coating	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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**

3.2 Architectural Coating - 2021

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	5.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.7600e-003**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	0.0322	1.0682	0.2672	4.3300e-003	0.0853	6.4900e-003	0.0918	0.0235	6.2100e-003	0.0297	0.0000	418.7850	418.7850	0.0245	0.0000	419.3964
Unmitigated	0.0322	1.0682	0.2672	4.3300e-003	0.0853	6.4900e-003	0.0918	0.0235	6.2100e-003	0.0297	0.0000	418.7850	418.7850	0.0245	0.0000	419.3964

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	90.00	0.00	0.00	201,193	201,193
Total	90.00	0.00	0.00	201,193	201,193

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
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9324	6.9324	3.1000e-004	6.0000e-005	6.9596
NaturalGas Mitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
NaturalGas Unmitigated	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

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					
Refrigerated Warehouse-No Rail	17690	1.0000e-004	8.7000e-004	7.3000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9440	0.9440	2.0000e-005	2.0000e-005	0.9496
Total		**1.0000e-004**	**8.7000e-004**	**7.3000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9440**	**0.9440**	**2.0000e-005**	**2.0000e-005**	**0.9496**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	23830	6.9324	3.1000e-004	6.0000e-005	6.9596
Total		**6.9324**	**3.1000e-004**	**6.0000e-005**	**6.9596**

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	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

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	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**4.4300e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4374	7.5500e-003	1.8000e-004	0.6802
Unmitigated	0.4374	7.5500e-003	1.8000e-004	0.6802

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0.23125 / 0	0.4374	7.5500e-003	1.8000e-004	0.6802
Total		**0.4374**	**7.5500e-003**	**1.8000e-004**	**0.6802**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1908	0.0113	0.0000	0.4727
Unmitigated	0.1908	0.0113	0.0000	0.4727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0.94	0.1908	0.0113	0.0000	0.4727
Total		**0.1908**	**0.0113**	**0.0000**	**0.4727**

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