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MEMORANDUM

DATE: June 3, 2025

TO: Ilnaz Patrick, Green Trucking Solutions, LLC

FROM: Ronald Brugger, Senior Air Quality Specialist

SUBJECT: Updated CalEEMod Analysis Memorandum for the proposed GTS Cold Storage Project in Apple Valley, California

INTRODUCTION

This memorandum has been prepared to describe the analysis conducted to update the previously prepared Air Quality, Greenhouse Gas Emissions, and Energy Impact Analysis Memorandum (see Attachment A) that was prepared in December 2022 for the proposed GTS Cold Storage Project in Apple Valley, California (project). This subsequent analysis has been conducted to bring the 2022 analysis up-to-date with the new version of the California Emissions Estimator Model (CalEEMod) and incorporates project design changes using methods and assumptions recommended in the Mojave Desert Air Quality Management District's (MDAQMD) *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines* (MDAQMD 2020a).

PROJECT LOCATION

The project site is at the northwest corner of Navajo Road and Lafayette Street in Apple Valley, California. The project site is an undeveloped 18.7-acre lot on Assessor's Parcel Number 0463-231-06. The proposed project site is located within the North Apple Valley Industrial Specific Plan, and the project site is zoned as Specific Plan Industrial. The project location and vicinity are shown in Figure 1 (all figures are provided in Attachment B).

PROJECT DESCRIPTION

The proposed project would develop a 385,004-square-foot (sf) cold storage warehouse building. The proposed warehouse project would also include two 2-story office areas, an electrical and fire pump building, and both automobile and truck parking spaces. Figure 2 shows the site plan. It is expected that construction of the project would start in mid-summer 2026 with a total construction duration of approximately 11 to 13 months.

Sensitive Receptors and Land Uses in the Project Vicinity

Sensitive receptors include residences such as private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, in-home daycares, health facilities such as hospitals,

long-term care facilities, retirement and nursing homes, community centers, places of worship, parks (excluding trails), prisons, and dormitories.

Existing land uses surrounding the project site include the Victor Valley Community College Regional Public Safety facility to the north, Fresenius Medical Care Distribution and vacant land to the east, a Big Lots Distribution Center to the south, and a Walmart Distribution Center to the west, none of which are considered sensitive receptors. The nearest sensitive receptor to the project site is a single-family residence more than 1 mile northwest of the project site on Cardova Road near Dale Evans Parkway.

METHODOLOGY

Construction Emissions

Construction activities produce combustion emissions from various sources (utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change.

The construction analysis includes estimating the construction equipment that would be used during each construction activity, the hours of use for that construction equipment, the quantities of earth and debris to be moved, and the on-road vehicle trips (e.g., worker, soil-hauling, and vendor trips). The proposed earthwork for the project assumes the site would be balanced (no import or export needed). No demolition is included as part of the proposed project as the project site is currently undeveloped. CalEEMod defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths. It is expected that construction would start in July 2026 and finish in June 2027.

Consistent with MDAQMD's guidance for estimating emissions, the CalEEMod version 2022.1 computer program was used to calculate construction emissions. The analysis was conducted using the land use code *Refrigerated Warehouse-No Rail* and *Parking Lot.* Other than the construction schedule and fugitive dust control measures mandated by compliance with MDAQMD Rule 403, all other parameters in CalEEMod were left at the default values. Rule 403 measures that would be implemented to significantly reduce fugitive dust emissions from construction include:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

Operational Emissions

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

CalEEMod was also used to calculate the long-term operational emissions of criteria pollutants and greenhouse gases (GHGs) associated with the project. The analysis was conducted using the land use code *Refrigerated Warehouse-No Rail* and *Parking Lot*. The proposed project would generate emissions from daily operations and a large amount of heavy-duty truck trips from warehouse operations. The *GTS Cold Storage Project Trip Generation and Vehicle Miles Traveled Memorandum* (LSA 2022) determined that the project would generate 563 car, 56 two-axle truck, 45 three-axle truck, and 153 four-plus axle truck trips daily. As specified by Green Trucking Solutions, for this subsequent CalEEMod analysis, 20 of the daily 153 four-plus axle truck trips would be conducted using zero-emission trucks.

The following modeling parameters were not changed from the original analysis. A photovoltaic system would be included that provides 75 percent of the overall electricity requirements. Water management practices would be utilized to reduce water use by 50 percent from the CalEEMod default water use rate and waste management practices would be utilized to reduce solid waste by 25 percent from the CalEEMod default waste disposal rate. It was assumed there would be standard warehouse equipment, represented by six forklifts and six "other material handling equipment". To analyze the worst case, it was assumed they would all be diesel-powered. As the distance the haul trucks will travel is unknown, it was conservatively assumed the average truck trip length would be 40 miles each way and the delivery trucks would average the CalEEMod default 7.3 miles each way. PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

All truck/dock bays within the proposed buildings will include electrical outlets to facilitate plug-in capabilities and support use of electric standby and/or hybrid electric transport refrigeration units (TRUs). All truck/dock bays will include signs instructing truck operators to plug in their TRUs. There would not be any emissions from the TRUs when plugged in. However, this analysis includes TRU emissions using the following conservative assumptions:

- No TRUs would be plugged in to any available power source but would all run on their built-in diesel engine.
- All TRUs would be diesel powered and a mix of 2024 and older models.
- All TRUs would operate onsite for up to 4 hours every time a truck enters the site.

The proposed project would include refrigeration equipment that would consist of 26 evaporator coils, two gas coolers, and four CO_2 packages on the rooftop of the proposed warehouse building. It was assumed that the only emissions from this equipment would be negligible fugitive emissions.

The proposed project would include a fire pump, which includes a 324-horsepower, six-cylinder diesel engine. The fire pump would only be used during an emergency event and was included in CalEEMod to normally operate 1 hour per month for maintenance and testing.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, such as renewable energy, producing fewer emissions than conventional sources.

Typically, area source emissions consist of direct sources of air emissions at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment and the use of consumer products.

THRESHOLDS OF SIGNIFICANCE

Certain air districts (e.g., MDAQMD) have created guidelines and requirements to conduct air quality analyses. MDAQMD's current guidelines, the *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines* (MDAQMD 2020a), were followed in this assessment of air quality and climate impacts for the proposed project.

Pollutants with Regional Effects

MDAQMD has established emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Table A lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table A: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Thresholds					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Daily Emissions (lbs/day)						
Construction	137	137	548	82	65	137
Operations	137	137	548	82	65	137
Annual Emissions (tons/year)						
Construction	25	25	100	15	12	25
Operations	25	25	100	15	12	25

Source: MDAQMD Air Quality Significance Thresholds (MDAQMD 2020a)

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emissions thresholds would be considered significant under MDAQMD guidelines. These thresholds, which MDAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project site are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

Greenhouse Gas Emissions

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in California. The MDAQMD has annual and daily GHG (CO_2e) thresholds of 100,000 tons/year (90,718 metric tons/year) and 548,000 lbs/day, respectively.

This analysis will consider whether the proposed project is compliant with the Apple Valley 2019 Climate Action Plan (CAP) (Town of Apple Valley 2021). If the proposed project is determined to be compliant with the Plan, then impacts related to the GHG emissions resulting from the proposed project will be considered less than significant.

Energy

While no quantitative thresholds related to energy are included in the *State CEQA Guidelines*, the *State CEQA Guidelines* indicate that a project would normally have a significant adverse energy impact if the project would do either of the following:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation

  OR

- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency

For the purposes of this analysis, impacts to energy resources will be considered significant if the proposed project would result in the wasteful, inefficient, or unnecessary consumption of fuel or energy; and/or conversely, if the project would not incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation, or other project features.

IMPACTS AND MITIGATION MEASURES

Emissions would include criteria air pollutants and GHG emissions. The sections below describe the proposed project's estimated project emissions and the significance of impacts with respect to MDAQMD thresholds.

Criteria Pollutant Analysis

Construction Emissions

Construction emissions were calculated for the project as described in the Methodology section and are shown in Table B.

Table B: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Site Preparation	3	29	30	<1	8	1	4	1
Grading	3	27	29	<1	4	1	2	1
Building Construction	2	26	26	<1	3	<1	<1	<1
Architectural Coating	24	1	3	<1	<1	<1	<1	<1
Paving	2	7	11	<1	<1	<1	<1	<1
Peak Daily	**26**	**29**	**30**	**<1**	**9**		**5**	
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**		**65**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (May 2025).

It was assumed that the architectural coatings would be applied during the building construction phase. PM_{10} and $PM_{2.5}$ fugitive emissions are controlled by the required dust control measures per MDAQMD Rule 403.

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Operational Emissions

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project. Truck/trailer TRU source emissions would include project-generated truck and trailer TRUs used for refrigerated truck/trailer contents.

Emission estimates for operation of the project were calculated using CalEEMod and are shown in Table C, below. The peak daily emissions associated with project operations are identified in Table C for VOC, nitrogen oxides (NO_X), CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$.

The results shown in Table C indicate the project would not exceed the significance criteria for daily or annual VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions; therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS. CalEEMod output is attached (Attachment C).

Table C: Project Operation Emissions

Source Category	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Daily Emissions Rates (lbs/day)						
Area Source Emissions	12	<1	17	<1	<1	<1
Energy Source Emissions	<1	3	2	<1	<1	<1
Mobile Source Emissions	2	12	25	<1	9	2
Truck/Trailer TRU Sources	14	13	2	<1	<1	<1
Warehouse Equipment Emissions	1	11	20	<1	<1	<1
Fire Pump Emissions	<1	<1	<1	<1	<1	<1
Total Daily Project Emissions	**29**	**39**	**66**	**<1**	**9**	**2**
MDAQMD Significance Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Annual Emissions Rates (tons/year)						
Total Annual Project Emissions	2	4	8	<1	2	1
MDAQMD Significance Threshold	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (May 2025).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
TRU = transport refrigeration unit
VOC = volatile organic compounds

Objectionable Odors. MDAQMD addresses odor criteria within the CEQA Handbook. The MDAQMD has not established a rule or standard regarding odor emissions, rather, the MDAQMD has a nuisance rule: "Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact."

The proposed project is not known to include any activities or operations that would generate objectionable odors, nor are there any sensitive receptors near the project site. Therefore, the

proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Greenhouse Gas Impacts

Generation of Greenhouse Gas Emissions

This section discusses the project's impacts related to the release of GHG emissions for the construction and operational phases of the project.

Construction Activities. Construction activities associated with proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

As shown in Table D, the project construction emissions would total 747 MT CO_2e. (See the CalEEMod output in Attachment C for details.)

Table D: Construction Greenhouse Gas Emissions

Construction Phase	Total Emissions per Phase (MT)			Total Emissions per Phase (MT CO_2e)
	CO_2	CH_4	N_2O	
Site Preparation	25	<1	<1	25
Grading	62	<1	<1	62
Building Construction	613	<1	<1	624
Architectural Coating	20	<1	<1	20
Paving	15	<1	<1	16
Total Emissions for the Entire Construction Process				**747**

Source: Compiled by LSA (May 2025).

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT CO_2e = metric tons of carbon dioxide equivalent
MT = metric tons
N_2O = nitrous oxide

Operational GHG Emissions. Operation of the proposed project would generate GHG emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle and truck trips to and from the project site. Truck/trailer TRU source emissions would include project-generated truck and trailer TRUs used for refrigerated truck/trailer contents. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project-generated waste.

As described above, the proposed project would include refrigeration equipment that would use CO_2 as the cooling agent. It was assumed that the only CO_2 emissions from this equipment would be negligible fugitive emissions. Also as described above, the fire pump, which includes a 324-horsepower, six-cylinder diesel engine that would only be used during an emergency event and normally operated for 1 hour per month for maintenance and testing.

For informational purposes only the project-related GHG emissions were calculated. As shown in Table E, the project would generate 4,516 MT CO_2e per year, less than the MDAQMD annual GHG threshold of 100,000 MT CO_2e per year. The mobile GHG emissions are higher than shown in the December 2022 Air Quality, Greenhouse Gas Emissions, and Energy Impact Analysis Memorandum primarily due to the differences between the version of CalEEMod used then (version 2020.4.0) with the current version of CalEEMod. CalEEMod Version 2022.1 has been fundamentally revised - many of the defaults and underlying calculations for emissions quantification have been updated and refined (e.g., traffic analysis zone–specific vehicle trip data). Additionally, the December 2022 memo didn't include the TRU or warehouse equipment emissions.

Table E: Long-Term Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT per year)						
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	Refrigerant[1]	CO_2e
Area	0	6	6	<1	<1	0	6
Energy	0	1,063	1,063	<1	<1	0	1,067
Mobile	0	2,341	2,341	<1	<1	3	2,415
Truck/Trailer TRU Sources	0	464	464	<1	<1	0	464
Warehouse Equipment	0	353	353	<1	<1	0	355
Fire Pump	0	2	2	<1	0	0	2
Waste	24	0	24	2	0	0	85
Water	14	63	77	2	<1	0	124
Warehouse Refrigerant (CO_2)	0	0	0	0	0	0	0
						Total Project Emissions	**4,516**

Source: Compiled by LSA (April 2025).
[1] CalEEMod quantifies common refrigerant GHG's used in vehicle air conditioning, including fluorinated GHGs, some of which are HFCs.
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT = metric tons
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2
TRU = transport refrigeration unit

Consistency with Plans Assessment

As described in the Town's General Plan Housing Element, 16.6 percent of the Town's population works in Apple Valley. The remaining 83 percent work elsewhere, which could suggest a jobs-housing imbalance within the Town limits. As such, it is expected that the jobs created by the Project would be sourced from the local workforce and would not require people to relocate from surrounding communities. Given the existing demand for jobs in the Town, it is likely that all of the jobs created by the Project would be filled by existing residents of Apple Valley. It is therefore assumed that the Town's 2030 population, including buildout of the Project, would be 84,535 as analyzed in the CAP.

Based on a population of 84,535, Table F shows that in order for the Town to meet the 2030 emissions reduction target, the GHG emissions would have to be no more than 5.32 tons per capita. The table also shows that with implementation of the CAP reduction measures, the Town expects to go beyond the established emissions target, reducing forecasted emissions to 410,922 $MTCO_2e$ per year or 4.86 tons per capita. The 2030 emissions forecast with CAP measures accounts for community emissions, including industrial projects. It is therefore likely that the Project's estimated annual emissions of 4,516 $MTCO_2e$ would already be covered by the 2030 emissions forecast. However, assuming an industrial development like the proposed Project was not accounted for in the CAP 2030 forecast, and to ensure a conservative analysis, the Project's emissions were added to the existing forecast. As shown in Table F, the total annual emissions from the Project and existing 2030 forecast would be 415,438 $MTCO_2e$, or 4.91 tons per capita. Both the total and per capita emissions meet the CAP target for 2030 of 40 percent below the 2005 baseline. The Town-wide emissions in 2030, including the Project, would therefore meet the CAP greenhouse gas emissions reduction target.

Table F: Project Emissions and CAP Reduction Target

Target/Scenario	Forecast ($MTCO_2e$)	Population	$MTCO_2e$ Per Capita
CAP 2030 forecast w/CAP measures	410,922	84,535	4.86
Project emissions (per year)	4,516	84,535	--
Total	415,438	84,535	4.91
CAP 2030 target (40% below baseline)	449,347	84,535	5.32
Would GHG Emissions Exceed the CAP 2030 Target?			No

Source: Town of Apple Valley's General Plan Housing Element and Climate Action Plan

In order to ensure that the Project's GHG emissions are reduced to the greatest extent possible, the Project will be subject to applicable reduction measures from the CAP. The Project's consistency with applicable reduction measures is Table G.

Town of Apple Valley Climate Action Plan 2019 Update

The reduction measures in Apple Valley's 2019 CAP Update are divided into three broad categories: Town Municipal Operational Measures, Community Operational Measures, and New Development Measures. Because the Project is a "New Development", it is measured against the measures applicable to the Project as shown Table G.

Table G: Project Consistency with Town of Apple Valley Climate Action Plan

Measures	Consistency Determination
ND-9. During project construction, encourage on-site and off-road construction equipment to utilize biodiesel fuel (a minimum of B20), except for equipment where use of biodiesel fuel would void the equipment warranty. As a conservative measure, no reduction in GHG emissions was taken for the implementation of this measure as it is unknown if biodiesel can be readily applied to the various pieces of construction equipment that will be necessary for the project.	**Consistent**. The Alternative Diesel Fuels (ADF) regulation has made more readily available low carbon, and often times lower polluting, diesel fuel substitutes to enter the commercial market in California. The MDAQMD, though the construction permit process, requires information be provided on the use of such fuel.

Measures	Consistency Determination
ND-11. Install pedestrian, bicycle and/or equestrian trails connecting project to school(s), commercial project(s) or transit.	**Consistent**. Sidewalks connecting to the Victor Valley campus and the adjacent development will be constructed.
ND-12. Building and site plan designs shall ensure that the project energy efficiencies meet applicable California Title 24 Energy Efficiency Standards. Verification of increased energy efficiencies shall be documented in Title 24 Compliance Reports provided by the applicant and reviewed and approved by the Town prior to the issuance of the first building permit. Any combination of the following design features may be used to fulfill this measure provided that- the total increase in efficiency meets or exceeds Title 24 standards: • Buildings shall meet or exceed California Title 24 Energy Efficiency performance standards for water heating and space heating and cooling. • Increase in insulation such that heat transfer and thermal bridging is minimized. • Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption. • Incorporate dual-paned or other energy efficient windows. • Incorporate energy efficient space heating and cooling equipment. • Incorporate the use of tankless water heaters in all residential units and community buildings. • Promote building design that will incorporate solar control in an effort to minimize direct sunlight upon windows. A combination of design features including roof eaves, recessed windows, “eyebrow” shades and shade trees shall be considered. • Interior and exterior energy efficient lighting which exceeds the California Title 24 Energy Efficiency performance standards shall be installed, as deemed acceptable by Town. Automatic devices to turn off lights when they are not needed shall be implemented. • To the extent that they are compatible with landscaping guidelines established by the Town, shade producing trees, particularly those that shade paved surfaces such as streets and parking lots and buildings shall be planted at the Project site. • Paint and surface color palette for the Project shall emphasize light and off-white colors which will reflect heat away from the buildings. • All buildings shall be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, and wind energy systems on properties greater than 2 acres, appropriate to their architectural design. • Consideration shall be given to using LED lighting for all outdoor uses (i.e., buildings, pathways, landscaping, carports).	**Consistent**. Building will be designed and constructed to meet California Title 24 energy requirements. Requirements will be met using a combination of the building envelope, HVAC system and electrical systems.
ND-16. Install Energy Star appliances and energy efficient fixtures.	**Consistent**. Energy star appliances will be installed in office breakrooms or as applicable.
ND-17. Install all CFL or LED light bulbs.	**Consistent**. LED light bulbs will be installed throughout facility.
ND-18. Install common area electric vehicle charging station(s) and secure bicycle racks.	**Consistent**. Electrical vehicle charging and secure bicycle racks will be installed as required per city ordinances/California title 24 energy code.

Measures	Consistency Determination
ND-19. To reduce the project's energy use from the grid: Install solar panels/photovoltaic systems sufficient to provide electric power and heat water within the project, and/or Install other clean energy system sufficient to provide electric power and heat water within the project, and/or	**Consistent**. The Project proposes solar panels.
ND-24. Recycle and/or salvage non-hazardous construction and demolition waste, and develop and implement a construction waste management plan quantifying the reduction in the waste stream.	**Consistent**. The Project shall comply with Section 5.408 of the 2019 California Green Building Code Standards, which requires new development projects to submit and implement a construction waste management plan in order to reduce the amount of construction waste transported to landfills
ND-25. Reuse construction waste in project features (e.g., shattered concrete or asphalt can be ground and used in walkways and parking lots).	**Consistent**. CALGreen requires covered projects to recycle and/or salvage for reuse a minimum 65% of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent.
ND-26. Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills by providing easily accessible areas that serve each building and are dedicated to the collection and storage of paper, cardboard, glass, plastics, and metals.	**Consistent**. Trash enclosures will be provided easily accessible from the building and recycling collection containers will be provided.

Source: Town of Apple Valley Climate Action Plan

As shown in Table G, the project would be compliant with the Town's CAP and with the addition of the Project's emissions, the Project Town-wide CO_2e emissions would still meet the 2030 reduction target. Thus, the project's impacts related to GHG emissions would be less than significant and no mitigation would be necessary.

Energy

The proposed project would increase the demand for electricity, natural gas, and gasoline when compared to the existing condition of the site. The discussion and analysis provided below is based on the data included in the CalEEMod output, which is included as Attachment C.

Operational Energy Use

Energy use includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage for heating, while indirect sources include electricity generated by off-site power plants. Natural gas use in CalEEMod is measured in units of a thousand British thermal units (kBTU) per year; however, this analysis converts the results to natural gas in units of therms. Electricity use in CalEEMod is measured in kWh per year.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24 (e.g., space heating, space cooling,

water heating, and ventilation). Non-Title 24 uses include all other end uses (e.g., appliances, electronics, and other miscellaneous plug-in uses). Because some lighting is not considered as part of the building envelope energy budget, CalEEMod considers lighting as a separate electricity use category.

For natural gas, uses are likewise categorized as Title 24 or non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include appliances.

Table H shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic analysis (see Attachment D) in conjunction with DOT fuel efficiency data.

Table H: Estimated Annual Energy Use of the Proposed Project

Land Use	Electricity Use (kWh/yr)	Natural Gas Use (kBTU/yr)	Gasoline (gal/yr)	Diesel (gal/yr)
Industrial	2,175,595	10,142,635	91,602	262,140

Source: Compiled by LSA (May 2025).
gal/yr = gallons per year
kBTU/yr = thousand British thermal units per year
kWh/yr = kilowatt-hours

As shown in Table H, the estimated potential increased electricity demand associated with the proposed project is 2,175,595 kWh per year. In 2022, San Bernardino County consumed 16,630 GWh or 16,629,614,195 kWh (CEC n.d.-a). Therefore, electricity demand associated with the proposed project would be approximately 0.01 percent of San Bernardino County's total electricity demand.

Also shown in Table H, the estimated potential increased natural gas demand associated with the proposed project is 10,142,635 kBTU per year or 101,426 therms (CEC n.d.-b). In 2022, San Bernardino County consumed 562,123,065 therms. Therefore, natural gas demand associated with the proposed project would be 0.02 percent of San Bernardino County's total natural gas demand.

Furthermore, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. According to the CARB EMFAC2025 model, the average fuel economy for light-duty vehicles (automobiles, pickups, vans, and sport utility vehicles) in the Mojave Desert Air Basin in 2025 is 49.9 mpg and 7.6 mpg for heavy-duty trucks (see attachment D).

Using the traffic data from the project traffic analyses, the proposed project would result in the annual consumption of 91,602 gallons of gasoline and 262,170 gallons of diesel fuel. In 2019, vehicles in California consumed approximately 15.6 billion gallons of gasoline and 3.8 billion gallons of diesel fuel (CEC n.d.-c). Therefore, gasoline and diesel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California and, by extension, in San Bernardino County.

In addition, vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, the fuel

efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

Energy Use Summary

As described above, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation measures would be necessary.

Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

As indicated above, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level and because the project's total impacts to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's *2024 Integrated Energy Policy Report* (CEC 2024). In addition, the proposed project would comply with Title 24 and CALGreen standards. Thus, as shown above, the proposed project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and would not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant, and no mitigation measures would be necessary.

CONCLUSION

Based on the analysis presented above, operational emissions associated with the proposed project would not exceed MDAQMD established significance thresholds. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed project would also not result in objectionable odors affecting a substantial number of people. GHG emissions released during operation of the project are estimated to be lower than significance thresholds and would not be cumulatively considerable. Additionally, the project would not conflict with the goals and objectives of a State or regional plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions, nor result in the wasteful, inefficient, or unnecessary consumption of energy resources.

REFERENCES

California Energy Commission (CEC). 2024. *2024 Integrated Energy Policy Report Update*. November. Website: www.energy.ca.gov/publications/2024/2024-integrated-energy-policy-report-update (accessed April 2025).

———. n.d.-a. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed April 2025).

———. n.d.-b. Gas Consumption by County. Website: ecdms.energy.ca.gov/gasbycounty.aspx (accessed April 2025).

———. n.d.-c. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed April 2025).

County of San Bernardino. 2015. Development Review Processes. March. Website: www.sbcounty.gov/Uploads/lus/GreenhouseGas/FinalGHGUpdate.pdf (accessed April 2025).

LSA. 2022. *GTS Cold Storage Project Trip Generation and Vehicle Miles Traveled Memorandum*, September 16.

Mojave Desert Air Quality Management District (MDAQMD). 2020a. *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines*. February. Website: www.mdaqmd.ca.gov/home/showpublisheddocument/8510/637406182097070000 (accessed April 2025).

Town of Apple Valley. 2009. *2009 General Plan*. August. Website: www.applevalley.org/services/planning-division/2009-general-plan (accessed April 2025).

_____. 2021. *Climate Action Plan 2019 Update*. May. Website: www.applevalley.org/home/showpublisheddocument/31233/637623641454430000 (accessed April 2025).

United States Department of Transportation (DOT). 2025. Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles. Website: www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles (accessed April 2025).

Attachments: A – December 2022 Air Quality, Greenhouse Gas Emissions, and Energy Impact Analysis Memorandum
B – Figures
C – CalEEMod Output
D – Fuel Usage Worksheets

ATTACHMENT A

DECEMBER 2, 2022 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY IMPACT ANALYSIS MEMORANDUM

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: December 2, 2022

TO: Ilnaz Patrick, Green Trucking Solutions, LLC

FROM: Ronald Brugger, Senior Air Quality Specialist

SUBJECT: Air Quality, Greenhouse Gas Emissions, and Energy Impact Analysis Memorandum for the proposed GTS Cold Storage Project in Apple Valley, California

INTRODUCTION

This air quality, greenhouse gas (GHG) emissions, and energy impact analysis for the proposed GTS Cold Storage Project in Apple Valley, California (project) has been prepared using methods and assumptions recommended in the Mojave Desert Air Quality Management District's (MDAQMD) *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines* (MDAQMD 2020a). This analysis includes a description of existing regulatory framework and an assessment of project air pollutant emissions, GHG emissions, and energy use. Measures to reduce or eliminate significant impacts are identified, where appropriate.

PROJECT LOCATION

The project site is at the northwest corner of Navajo Road and Lafayette Street. The project site is an undeveloped 18.7-acre lot on Assessor's Parcel Number 0463-231-06. Also, the project site is located within the North Apple Valley Industrial Specific Plan, and the project site is zoned as Specific Plan Industrial. The project location and vicinity are shown in Figure 1 (all figures are provided in Attachment A).

PROJECT DESCRIPTION

The proposed project would develop a 385,004-square-foot (sf) cold storage warehouse building. The proposed warehouse project would also include two 2-story office areas, an electrical and fire pump building, and both automobile and truck parking spaces. Figure 2 shows the site plan. It is expected that construction of the project would start in April 2023 and be completed in August 2024, resulting in a total construction duration of approximately 16 months.

Sensitive Receptors and Land Uses in the Project Vicinity

Sensitive receptors include residences such as private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, in-home daycares, health facilities such as hospitals, long-term care facilities, retirement and nursing homes, community centers, places of worship, parks (excluding trails), prisons, and dormitories.

Existing land uses surrounding the project site include the Victor Valley Community College Regional Public Safety facility to the north, Fresenius Medical Care Distribution and vacant land to the east, a Big Lots Distribution Center to the south, and a Walmart Distribution Center to the west, none of which are considered sensitive receptors. The nearest sensitive receptor to the project site is a single-family residence more than 1 mile northwest of the project site on Cardova Road near Dale Evans Parkway.

REGIONAL CLIMATE AND AIR QUALITY

The project site is in Apple Valley in San Bernardino County, which is part of the Mojave Desert Air Basin (Basin) and is under the jurisdiction of MDAQMD. This Basin is an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor.

Apple Valley, its sphere of influence, and the region are influenced by moderate coastal conditions, though the area is far enough inland that temperatures can reach more than 100 degrees Fahrenheit (^{o}F) during the summer and drop below freezing during the winter. The prevailing wind patterns in the region are controlled by on-shore westerly winds during the day, and off-shore easterly winds in the evenings and at night, with the dominant wind out of the west and southwest. During fall and winter months, climatic conditions associated with strong, dry winds can affect the region, creating a condition known as the Santa Ana winds, which can blow for multiple days. These strong wind events suspend and transport large quantities of particulate matter, including sand and dust, which can reduce visibility, damage property, and pose a significant health threat.

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As detailed in Table A, these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in size (PM_{10}), particulate matter less than 2.5 microns in size ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table B summarizes the most common health and environmental effects for each of the air pollutants for which there is a national and/or California AAQS, as well as for toxic air contaminants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (by the United States Environmental Protection Agency [EPA]), these health effects would not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are typically more stringent than federal AAQS. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$ and PM_{10}) are considered pollutants with regional effects, while the others have more localized effects (CARB 2022a).

Table A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
O_3[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
CO	1-Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
NO_2[10]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
SO_2[11]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	—		—	0.5 ppm (1,300 µg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility-Reducing Particles[14]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: CARB *Ambient Air Quality Standards*. May 4, 2016. Website: www.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf (accessed November 2022).

Footnotes are provided on the following page.

[1] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1- and 24-hour), NO_2, and PM (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California AAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than for O_3 and PM and those based on the annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current national policies.

[3] Concentration expressed first in the units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method that can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] The reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated as Nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated as Nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[14] In 1989, CARB converted both the general statewide 10 mi visibility standard and the Lake Tahoe 30 mi visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
AAQS = ambient air quality standards
CARB = California Air Resources Board
CO = carbon monoxide
EPA = United States Environmental Protection Agency
mg/m^3 = milligrams per cubic meter
mi = mile/miles
NO_2 = nitrogen dioxide
O_3 = ozone
PM = particulate matter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ppb = parts per billion
ppm = parts per million
SO_2 = sulfur dioxide

Table B: Summary of Health and Environmental Effects of the Criteria Air Pollutants

Pollutant	Effects on Health and the Environment
Ozone (O_3)	• Respiratory symptoms • Worsening of lung disease leading to premature death • Damage to lung tissue • Crop, forest and ecosystem damage • Damage to a variety of materials, including rubber, plastics, fabrics, paint and metals
$PM_{2.5}$ (particulate matter less than 2.5 microns in aerodynamic diameter)	• Premature death • Hospitalization for worsening of cardiovascular disease • Hospitalization for respiratory disease • Asthma-related emergency room visits • Increased symptoms, increased inhaler usage
PM_{10} (particulate matter less than 10 microns in aerodynamic diameter)	• Premature death & hospitalization, primarily for worsening of respiratory disease • Reduced visibility and material soiling
Nitrogen Oxides (NO_X)	• Lung irritation • Enhanced allergic responses
Carbon Monoxide (CO)	• Chest pain in patients with heart disease • Headache • Light-headedness • Reduced mental alertness
Sulfur Oxides (SO_X)	• Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits
Lead	• Impaired mental functioning in children • Learning disabilities in children • Brain and kidney damage
Hydrogen Sulfide (H_2S)	• Nuisance odor (rotten egg smell) • At high concentrations: headache & breathing difficulties
Sulfate	• Same as $PM_{2.5}$, particularly worsening of asthma and other lung diseases • Reduces visibility
Vinyl Chloride	• Central nervous system effects, such as dizziness, drowsiness & headaches • Long-term exposure: liver damage & liver cancer
Visibility Reducing Particles	• Reduced airport safety, scenic enjoyment, road safety, and discourages tourism
Toxic Air Contaminants About 200 chemicals have been listed as toxic air contaminants	• Cancer • Reproductive and developmental effects • Neurological effects

Source: Common Air Pollutants (CARB 2022a).
CARB = California Air Resources Board

The California Clean Air Act (CCAA) provides MDAQMD and other air districts with the authority to manage transportation activities at indirect sources. Indirect sources of pollution include any facility, building, structure, or installation, or combination thereof, that attracts or generates mobile-source emissions of any pollutant. In addition, area-source emissions that are generated when minor sources collectively emit a substantial amount of pollution are also managed by the local air districts. Examples of this would be the motor vehicles at an intersection, at a mall, and on highways. MDAQMD also regulates stationary sources of pollution throughout its jurisdictional area. The California Air Resources Board (CARB) regulates direct emissions from motor vehicles.

Climate/Meteorology

Air quality in the planning area is affected not only by various emission sources (e.g., mobile and industry) but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). As described above, the project site is in the Mojave Desert Air Basin, which is an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the Basin are out of the west and southwest. These prevailing winds are due to the proximity of the Basin to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the Basin. The Basin is separated from the Southern California coastal and central California valley regions by mountains (highest elevation is approximately 10,000 feet), whose passes form the main channels for these air masses. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser pass lies between the San Bernardino Mountains and the Little San Bernardino Mountains in the Morongo Valley.

During the summer, the Basin is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The Basin is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The Basin averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The Basin is classified as a dry hot desert climate, with portions classified as dry very hot desert, to indicate that at least 3 months have maximum average temperatures over 100.4°F.

Snow is common above 5,000 feet in elevation, resulting in moderate snowpack and limited spring runoff. Below 5,000 feet, any precipitation normally occurs as rainfall. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific Ocean collide with rising heated air from desert areas, resulting in brief, high intensity thunderstorms that can cause high winds and localized flash flooding. During the fall and winter months, strong, dry Santa Ana winds from the northeast can cause rapid temperature variations of significant magnitude.

Description of Global Climate Change and Its Sources

Earth's natural warming process is known as the "greenhouse effect." This greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiated heat from escaping, thus warming Earth's atmosphere. GHGs keep the average surface temperature of the Earth to approximately 60°F. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences (IPCC 2007).

Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect (Pew Center 2006). While the increase in temperature is known as "global warming," the resulting change in weather patterns is known as

"global climate change." Global climate change (GCC) is evidenced in changes to global temperature rise, warming oceans, shrinking ice sheets, glacial retreat, decreased snow cover, sea level rise, declining Arctic sea ice, extreme weather events, and ocean acidification (IPCC 2007).

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. While climate change may increase the concentration of ground-level ozone, the magnitude of the effect and, therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would exacerbate air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State (California Department of Public Health 2014). However, if higher temperatures are accompanied by wetter, rather than drier, conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus reducing the pollution associated with wildfires. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are:[1]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which can cause global warming. Although GHGs produced by human activities include naturally occurring GHGs (e.g., CO_2, CH_4, and N_2O), some gases (e.g., HFCs, PFCs, and SF_6) are completely new to the atmosphere. Water vapor is a GHG, but it is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes (e.g., oceanic evaporation). For the purposes of this air quality study, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

These GHGs vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. For example, N_2O is from 265 to 310 times more potent at contributing to global warming than CO_2. GHG emissions are typically

[1] The greenhouse gases listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this section.

measured in terms of metric tons of CO_2 equivalents (MT CO_2e). Table C identifies the GWP for the three GHGs analyzed in this report. The EPA and CARB use GWP values from the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4). The IPCC has published the 2021 IPCC Sixth Assessment Report (AR6) with updated GWP values.

Table C: Global Warming Potential for Selected Greenhouse Gases

Pollutant	AR4 Values	AR6 Values
Carbon Dioxide (CO_2)	1 (by definition)	1 (by definition)
Methane (CH_4)	25	29.8 ± 11
Nitrous Oxide (N_2O)	298	273 ± 30

Sources: *California's 2017 Climate Change Scoping Plan* (CARB 2017), IPCC Sixth Assessment Report (2021).
[1] The EPA and CARB use global warming potential values from the IPCC Fourth Assessment Report (2007).
AR4 = 2007 IPCC Fourth Assessment Report
AR6 = 2021 IPCC Sixth Assessment Report
CARB = California Air Resources Board
EPA = United States Environmental Protection Agency
IPCC = Intergovernmental Panel on Climate Change

Air Pollution Constituents and Attainment Status

CARB coordinates and oversees both State and federal air pollution control programs in the State. CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by CARB and the EPA to classify air basins as Attainment, Nonattainment, Nonattainment-Transitional, or Unclassified, based on air quality data for the most recent 3 calendar years compared with the AAQS.

Attainment areas may be the following:

- **Attainment/Unclassified** ("Unclassifiable" in some lists). These basins have never violated the air quality standard of interest or do not have enough monitoring data to establish Attainment or Nonattainment status.

- **Attainment-Maintenance** (national ambient air quality standards [NAAQS] only). These basins violated a NAAQS that is currently in use (were Nonattainment) in or after 1990, but now attain the standard and are officially redesignated as Attainment by the EPA with a Maintenance State Implementation Plan (SIP).

- **Attainment** (usually only for California ambient air quality standards [CAAQS], but sometimes for NAAQS). These basins have adequate monitoring data to show attainment, have never been Nonattainment, or, for NAAQS, have completed the official Maintenance period.

Nonattainment areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table D lists the attainment status for the criteria pollutants in the Basin.

Table D: Attainment Status of Criteria Pollutants in the Mojave Desert Air Basin

Pollutant	State	Federal
O_3	Nonattainment	Nonattainment[1]
PM_{10}	Nonattainment	Nonattainment[2]
$PM_{2.5}$	Nonattainment[1]	Attainment/Unclassified
CO	Attainment	Attainment/Unclassified
NO_2	Attainment	Attainment/Unclassified
SO_2	Attainment	Attainment/Unclassified
Lead[1]	Attainment	Attainment/Unclassified
All Others	Attainment/Unclassified	N/A

Source: Mojave Desert Air Quality Management District (n.d.-b).
1 Only the southwest corner of the desert portion of San Bernardino County is Nonattainment
2 Only the San Bernardino County portion is Nonattainment
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_2 = sulfur dioxide

LOCAL AIR QUALITY

MDAQMD, together with CARB, maintains ambient air quality monitoring stations. The air quality monitoring station that monitors air pollutant data closest to the site is the Victorville Monitoring Station at 14306 Park Avenue, Victorville, approximately 9.6 miles southwest of the project site. The air quality trends from this station are used to represent the ambient air quality in the project area. The ambient air quality data in Table E show that NO_2 and CO levels are below the applicable State and federal standards. However, PM_{10} and O_3 levels frequently exceed their respective standards and $PM_{2.5}$ levels occasionally exceed the federal 24-hour standard.

Table E: Air Quality Concentrations in the Project Vicinity

Pollutant	Standard	2019	2020	2021
CO				
Maximum 1-hour concentration (ppm)		1.5	1.6	1.5
No. of days exceeded	State: 20 ppm	0	0	0
	Federal: 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.1	1.4	1.0
No. of days exceeded	State: 9 ppm	0	0	0
	Federal: 9 ppm	0	0	0
O_3				
Maximum 1-hour concentration (ppm)		0.104	0.112	0.112
No. of days exceeded	State: 0.09 ppm	3	4	8
Maximum 8-hour concentration (ppm)		0.081	0.094	0.098
No. of days exceeded	State: 0.07 ppm	29	35	34
	Federal: 0.07 ppm	29	35	34
PM_{10}				
Maximum 24-hour concentration (µg/m³)		170	261	591
No. of days exceeded	State: 50 µg/m³	ND	ND	ND
	Federal: 150 µg/m³	2	2	1

Table E: Air Quality Concentrations in the Project Vicinity

Pollutant	Standard	2019	2020	2021
Annual avg. concentration (μg/m³)		27.0	34.1	33.8
Exceeds Standard?	State: 20 μg/m³	Yes	Yes	Yes
$PM_{2.5}$				
Maximum 24-hour concentration (μg/m³)		20	48.7	87.1
No. of days exceeded	Federal: 35 μg/m³	0	4	1
Annual avg. concentration (μg/m³)		7.0	10.4	10.3
Exceeds Standard?	State: 12 μg/m³	No	No	No
	Federal: 12 μg/m³	No	No	No
NO_2				
Maximum 1-hour concentration (ppb):		56.0	59.4	56.6
No. of days exceeded	State: 180 ppb	0	0	0
	Federal: 100 ppb	0	0	0
Annual avg. concentration (ppb):		11	12	12
Exceeds standard?	State: 30 ppb	No	No	No
	Federal: 53 ppb	No	No	No

Source: iADAM (CARB 2022c).
μg/m³ = micrograms per cubic meter
CARB = California Air Resources Board
CO = carbon monoxide
ND = No data available
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter smaller than 2.5 microns in size
PM_{10} = particulate matter smaller than 10 microns in size
ppb = parts per billion
ppm = parts per million

ENERGY BACKGROUND

Energy usage is typically associated with electricity and natural gas consumption and fuel usage, as described below.

Electricity

Electricity is a manmade resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).The project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile area of Central, coastal, and Southern California (SCE 2020). According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2020 was 83,532.6 gigawatt-hours (GWh) (32,475 GWh for the residential sector and 51,057 GWh for the non-residential sector). Total electricity consumption in San Bernardino County in 2020 was 15,968.5 GWh (15,968,515,536 kilowatt-hours [kWh]) (CEC n.d.-a).

Natural Gas

Natural gas is a non-renewable fossil fuel. Fossil fuels form when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) used

as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project sites. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000-square-mile service area throughout Central and Southern California, from Visalia to the Mexican border (SoCalGas 2022). According to the CEC, total natural gas consumption in the SoCalGas service area in 2020 was 5,231 million therms, including 2,426 million therms for the residential sector and 2,294 million therms for the non-residential sector. Total natural gas consumption in San Bernardino County in 2020 was more than 527 million therms (527,236,428 therms) (CEC n.d.-b).

Fuel

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel. The average fuel economy for light-duty vehicles (automobiles, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.9 mpg in 2020.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 289,918 thousand barrels, or 1,464.7 trillion British thermal units (BTU) in 2020. Of the total gasoline consumption, 273,289 thousand barrels or 1,380.7 trillion BTU were consumed for transportation (CEC n.d.-c). Based on fuel consumption obtained from CARB's California Emissions Factor Model, Version 2021 (EMFAC2021), approximately 321.6 million gallons of diesel and approximately 915.5 million gallons of gasoline will be consumed from vehicle trips in San Bernardino County in 2022.

REGULATORY FRAMEWORK

Federal Regulations

Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established the NAAQS. The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations to protect public health.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization responsible for ensuring compliance with the requirements of the CAA for the Basin.

The United States has historically had a voluntary approach to reducing GHG emissions; however, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the CAA. The Supreme Court ruled that GHGs fit within the CAA's definition of a

pollutant and that the EPA did not have a valid rationale for not regulating GHGs. In December 2009, the EPA issued an endangerment finding for GHGs under the CAA.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to GCC.

On September 15, 2011, the EPA and the United States Department of Transportation (USDOT) issued final rule for the first national standards to improve fuel efficiency of medium- and heavy-duty trucks and buses, model years 2014 to 2018. For combination tractors, the agencies proposed engine and vehicle standards that would achieve up to a 20 percent reduction from the model year 2014 in fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which would achieve up to a 10 percent reduction from the model year 2014 for gasoline vehicles and a 15 percent reduction for diesel vehicles (12 and 17 percent, respectively, if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction from model year 2014 in fuel consumption. On October 25, 2016, the EPA and USDOT issued Phase 2 of the national standards to improve fuel efficiency standards for medium- and heavy-duty trucks and buses for model years 2021 to 2027 to achieve vehicle fuel savings as high as 25 percent, depending on the vehicle category.

On August 2, 2018, the previous Administration released a notice of proposed rulemaking, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule) to amend the Corporate Average Fuel Economy (CAFE) and GHG emission standards established in 2012 for model years 2021 through 2026. The SAFE Vehicle Rule would decrease fuel economy and would withdraw the California Waiver for the California Advanced Clean Car program, Zero Emissions Vehicle mandate, and GHG emission standards for model years 2021 through 2026.

The current administration withdrew portions of the SAFE Rule, concluding that the SAFE Rule overstepped the agency's legal authority and finalized updated CAFE Standards for model years 2024 through 2026. The final rule establishes standards that would require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024 and 2025, and 10 percent annually for model years 2026. The agency projects the final standards will save consumers nearly $1,400 in total fuel expenses over the lifetimes of vehicles produced in these model years and avoid the consumption of about 234 billion gallons of gas between model years 2030 to 2050. The National Highway Transportation Safety Administration also projects that the standards will cut GHGs from the atmosphere, reduce air pollution, and reduce the country's dependence on oil.

State Agencies and Regulations

California Air Resources Board

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the CARB. Since its formation, CARB has worked with the public, the business sector, and

local governments to find solutions to the State's air pollution problems. California adopted the California Clean Air Act in 1988. CARB administers the California ambient air quality standards for the 10 air pollutants designated in the California Clean Air Act. These 10 State air pollutants are the 6 criteria pollutants designated by the federal CAA as well as 4 others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to set a statewide GHG emissions limit and set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

In 2016, the Legislature passed, and Governor Jerry Brown signed, Senate Bill (SB) 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million (ppm) CO_2e and reduce the likelihood of catastrophic impacts from climate change. The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions.

In November 2022, CARB adopted the "2022 Scoping Plan for Achieving Carbon Neutrality" (Scoping Plan) (CARB 2022d) that lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bill 97 and State CEQA Guidelines

In August 2007, the Legislature adopted SB 97, requiring the Office of Planning and Research (OPR) to prepare and transmit new California Environmental Quality Act (CEQA) guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the California Natural Resources Agency. OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009, and the *State CEQA Guidelines* amendments were adopted on December 30, 2009 and became effective on March 18, 2010.

The *State CEQA Guidelines* amendments do not specify a threshold of significance for GHG emissions or prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis but rely on the lead agencies in making their own significance determinations based upon substantial evidence. The *State CEQA Guidelines* amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

The *State CEQA Guidelines* amendments require a lead agency to make a good-faith effort based on the extent possible on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The *State CEQA Guidelines* amendments give discretion to the lead agency whether to (1) use a model or methodology to quantify GHG emissions resulting from a project and which model or methodology to use and/or (2) rely on a qualitative analysis or performance-based standards. The California Natural Resources Agency is required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32.

California Green Building Standards

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations, is commonly referred to as the CALGreen Code. The State updates this code every 3 years. The first edition of the CALGreen Code was released in 2008 and contained only voluntary standards. The 2019 CALGreen Code was updated in 2019, became effective on January 1, 2020, and applies to non-residential and residential developments. The 2022 CalGreen Code will go into effect on January 1, 2023. The CALGreen Code contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, function at their maximum efficiency.

The CEC is the State's primary energy policy and planning agency, and it plays a critical role creating a clean and modern energy system. SB 1389 (Chapter 568, Statutes of 2002) requires the CEC to prepare an Integrated Energy Policy Report biennially at a minimum. The report should include a description of the international energy market prospects and an evaluation of its export promotion activities.

AB 2076 (passed in 2000, Shelley, Chapter 936, Statutes of 2000) directs the CARB and the CEC to develop and adopt recommendations for the Governor and the Legislature on a strategy to reduce California's dependence on petroleum.

In 2002, the Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

The CEC adopted the 2021 Integrated Energy Policy Report on March 23, 2021. The 2021 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including ensuring that the State has sufficient, reliable, and safe energy infrastructure to meet current and

future energy demands; monitoring publicly owned utilities' progress toward achieving 10-year energy efficiency targets; defining and including zero-net-energy goals in State building standards; overcoming challenges to increased use of geothermal heat pump/ground loop technologies and procurement of biomethane; using demand response to meet California's energy needs and integrate renewable technologies; removing barriers to bioenergy development; planning for California's electricity infrastructure needs given the potential retirement of power plants; estimating new generation costs for utility-scale renewable and fossil-fueled generation; planning for new or upgraded transmission infrastructure; monitoring utilities' progress in implementing past recommendations related to nuclear power plants; tracking natural gas market trends; implementing the Alternative and Renewable Fuel and Vehicle Technology Program; addressing the vulnerability of California's energy supply and demand infrastructure to the effects of climate change; and planning for potential electricity system needs in 2030 (CEC 2021).

Regional Air Quality Planning Framework

SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is a regional planning agency and a forum for regional issues relating to transportation, the economy and community development, and the environment. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On September 3, 2020, the Regional Council of SCAG adopted Connect SoCal, also known as the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life* (a.k.a., 2020–2045 RTP/SCS). The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

Mojave Desert Air Quality Management District

MDAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, MDAQMD, a regional agency, works directly with SCAG, county transportation commissions, and local governments, and cooperates actively with State and federal government agencies. MDAQMD develops air quality-related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

San Bernardino County, including Apple Valley, is in non-attainment for O_3 and particulate matter. To meet the requirements for basins that are in nonattainment, the MDAQMD has established attainment plans for O_3, PM_{10}, and $PM_{2.5}$.

Regional Air Quality Management Plan

The MDAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain CAAQS and NAAQS in the Mojave Desert Air

Basin. All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The MDAQMD prepared Air Quality Attainment Plans (AQAP) to address CAA and CCAA requirements by identifying policies and control measures. The SCAG assists by preparing the transportation portion of an AQAP.

The MDAQMD Rules & Regulations website (MDAQMD n.d.-a) lists the current attainment plans for the region. Consistency with the applicable AQAP would be achieved if the project complies with all applicable MDAQMD rules and regulations and is consistent with the growth forecasts in the applicable plan. Consistency with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The MDAQMD provides the *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines* (MDAQMD 2020a) to facilitate projects compliance with CEQA. MDAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The following MDAQMD rules and regulations would apply to the proposed project:

- MDAQMD Rule 403 (MDAQMD 2020b) requires projects to incorporate fugitive dust control measures.

- MDAQMD Rule 1113 (MDAQMD 2020c) limits the volatile organic compound (VOC) content of architectural coatings.

Local Regulations

Town of Apple Valley 2009 General Plan

The Town of Apple Valley (Town) addresses air quality and GHG emissions in Section 3, Environmental Resources (Town of Apple Valley 2009). This section includes goals and policies that work to pursue sustainability and resilience by making resource-efficient choices to conserve water, energy, and materials, improve air quality, and adjust to changing conditions. The following air quality related policies are applicable to the proposed project:

- The Town shall coordinate land use planning efforts to assure that sensitive receptors are reasonably separated from polluting point sources including mineral extraction operations.

- All projects that have the potential to generate significant levels of air pollution shall be required to provide detailed impact analyses and design mitigation measures that incorporate the most advanced technological methods available. Prior to the issuance of grading or demolition permits, the Town shall review and determine the effectiveness of proposed mitigation measures and set forth additional measures as needed.

- The use of clean and/or renewable alternative energy sources for transportation, heating and cooling, and construction shall be encouraged by the Town.

- Future residential, commercial, and industrial development and remodeling projects, shall strive to exceed Title 24 standards by 15% and/or achieve LEED certification or similar performance standards for buildings.

- The Town shall participate in the San Bernardino Associated Governments' Climate Action Plan, including assisting in providing data and background information, and implementing greenhouse gas reduction strategies established in the Plan, when complete.

Town of Apple Valley Climate Action Plan Update

The 2019 Climate Action Plan (CAP) Update (Town of Apple Valley 2021) is Apple Valley's comprehensive strategy to reduce GHG emissions in response to the challenges of climate change. The CAP, which was originally adopted in 2010, was designed to be revised every 3 years to respond to advances in technology, emerging policy reforms, and to build upon the successes of Apple Valley's efforts to reduce greenhouse gas emissions. The 2019 CAP Update represents the third update to the original document, and the information herein supersedes previous updates. The following policies are applicable to the proposed project:

- Building and site plan designs shall ensure that the project energy efficiencies meet applicable California Title 24 Energy Efficiency Standards. Verification of increased energy efficiencies shall be documented in Title 24 Compliance Reports provided by the applicant and reviewed and approved by the Town prior to the issuance of the first building permit. Any combination of the following design features may be used to fulfill this measure provided that the total increase in efficiency meets or exceeds Title 24 standards:

    - Buildings shall meet or exceed California Title 24 Energy Efficiency performance standards for water heating and space heating and cooling.

    - Increase in insulation such that heat transfer and thermal bridging is minimized.

    - Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.

    - Incorporate dual-paned or other energy efficient windows.

    - Incorporate energy efficient space heating and cooling equipment.

    - Incorporate the use of tankless water heaters in all residential units and community buildings.

    - Promote building design that will incorporate solar control in an effort to minimize direct sunlight upon windows. A combination of design features including roof eaves, recessed windows, "eyebrow" shades and shade trees shall be considered.

    - Interior and exterior energy efficient lighting which exceeds the California Title 24 Energy Efficiency performance standards shall be installed, as deemed acceptable by Town. Automatic devices to turn off lights when they are not needed shall be implemented.

  - To the extent that they are compatible with landscaping guidelines established by the Town, shade producing trees, particularly those that shade paved surfaces such as streets and parking lots and buildings shall be planted at the Project site.
  - Paint and surface color palette for the Project shall emphasize light and off-white colors which will reflect heat away from the buildings.
  - All buildings shall be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, and wind energy systems on properties greater than 2 acres, appropriate to their architectural design.
  - Consideration shall be given to using LED lighting for all outdoor uses (i.e. buildings, pathways, landscaping, carports).
- To reduce the project's energy use from the grid:
  - Install solar panels/photovoltaic systems sufficient to provide electric power and heat water within the project, and/or
  - Install other clean energy system sufficient to provide electric power and heat water within the project, and/or
  - Install solar or photovoltaic systems on new roofs whether on residential, commercial, or industrial buildings.
- Recycle and/or salvage non-hazardous construction and demolition waste and develop and implement a construction waste management plan quantifying the reduction in the waste stream.

The Town of Apple Valley participated in the San Bernardino County *Regional Greenhouse Gas Reduction Plan*, which presents the collective results of all local efforts to reduce GHG emissions consistent with statewide GHG targets expressed in AB 32 and SB 375. Apple Valley used the technical information within the San Bernardino County *Regional Greenhouse Gas Reduction Plan* in the development of the CAP.

County of San Bernardino Greenhouse Gas Emissions Reduction Plan Update

As a response to the 2006 AB 32 law, a project partnership led by the San Bernardino Associated Governments, the predecessor agency to the San Bernardino County Transportation Authority, has compiled an inventory of GHG emissions and developed reduction measures that were adopted by the 21 Partnership Cities of San Bernardino County. The regional GHG reduction plan serves as the basis for cities in San Bernardino County to develop more detailed community level climate action plans. The Town is a partner city in this study, which was last updated in March 2021 (County of San Bernardino 2021). Together with the *Greenhouse Gas Emissions Reduction Plan*, the County adopted its *Greenhouse Gas Emissions Development Review Processes* (DRP) (County of San Bernardino 2015) in 2016. The DRP procedures are designed to be followed to evaluate project-level GHG impacts and

determine significance for CEQA purposes. All projects need to comply with the GHG performance standards identified in the DRP and with State GHG emissions control requirements.

County of San Bernardino GHG Screening Tables

The purpose of the County's GHG Screening Tables (one for residential and one for commercial and industrial projects) are to provide guidance in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The analysis, methodology, and significance determination are based upon San Bernardino County's *Greenhouse Gas Emissions Reduction Plan Update*, which includes GHG reduction targets for years 2020 and 2030 and the goals and policies to reach those targets.

The Screening Tables have a range of point values assigned for each project design aspect incorporated into a project as a project design feature or mitigation. Projects that garner at least 45 points are considered to be consistent with the reduction quantities anticipated in the DRP, and thus, would be determined to have a less than significant individual and cumulative impact on GHG emissions per the *State CEQA Guidelines*.

The Screening Tables use a base level of efficiency that corresponds to the California Building Energy Efficiency Standards for Residential and Non-residential Buildings (Title 24, Part 6) that became effective January 1, 2020. These are the statewide minimum requirements of efficiency that are currently in effect.

THRESHOLDS OF SIGNIFICANCE

Certain air districts (e.g., MDAQMD) have created guidelines and requirements to conduct air quality analyses. MDAQMD's current guidelines, the *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines* (MDAQMD 2020a), were followed in this assessment of air quality and climate impacts for the proposed project.

Based on the *State CEQA Guidelines*, Appendix G (Public Resources Code Sections 15000–15387), a project would normally be considered to have a significant effect on air quality if the project would violate any CAAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

POLLUTANTS WITH REGIONAL EFFECTS

MDAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants.

Regional Emissions Thresholds

Table F lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table F: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Thresholds (lbs/day)					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	137	137	548	82	65	137
Operations	137	137	548	82	65	137

Source: MDAQMD Air Quality Significance Thresholds (MDAQMD 2020a)

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emissions thresholds would be considered significant under MDAQMD guidelines. These thresholds, which MDAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project site are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

GLOBAL CLIMATE CHANGE

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in California.

As described above, The Town of Apple Valley uses the County of San Bernardino GHG Screening Tables to determine GHG emissions significance. If a project can achieve a minimum of 100 points, the GHG emissions would be considered less than significant.

Energy

While no quantitative thresholds related to energy are included in the *State CEQA Guidelines*, the *State CEQA Guidelines* indicate that a project would normally have a significant adverse energy impact if the project would do either of the following:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation

  OR

- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency

For the purposes of this analysis, impacts to energy resources will be considered significant if the project would result in the wasteful, inefficient, or unnecessary consumption of fuel or energy; and/or conversely, if the project would not incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation, or other project features.

IMPACTS AND MITIGATION MEASURES

Emissions would include criteria air pollutants and GHG emissions. The sections below describe the proposed project's consistency with applicable air quality plans, estimated project emissions, and the significance of impacts with respect to MDAQMD thresholds.

Criteria Pollutant Analysis

The Mojave Desert Air Basin is designated as nonattainment for O_3 and PM_{10} for federal standards and nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards. The MDAQMD's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

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

Construction Emissions

Construction activities produce combustion emissions from various sources (utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change.

The construction analysis includes estimating the construction equipment that would be used during each construction activity, the hours of use for that construction equipment, the quantities of earth and debris to be moved, and the on-road vehicle trips (e.g., worker, soil-hauling, and vendor trips). The proposed earthwork for the project assumes the site would be balanced (no import or export needed). CalEEMod defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths. It is expected that construction would start in April 2023 and finish in mid- to late 2024. Table G lists the tentative project construction schedule.

Table G: Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days
Site Preparation	4/3/2023	4/14/2023	10
Grading	4/15/2023	5/26/2023	30
Building Construction	5/27/2023	7/19/2024	300
Architectural Coating	4/1/2024	7/19/2024	80
Paving	7/20/2024	8/16/2024	20

Source: Estimated by LSA Associates, Inc. from the project information provided (November 2022).

CalEEMod (Version 2020.4.0) was used to develop the construction equipment inventory and calculate the construction emissions. Table H lists the estimated construction equipment that would be used during project construction as estimated by CalEEMod default values. The CalEEMod output is included as Attachment B.

The emissions rates shown in Table I are from the CalEEMod output tables listed as “Mitigated Construction,” even though the only measures that have been applied to the analysis are the required construction emissions control measures, or standard conditions. They are also the combination of the on- and off-site emissions and the greater of summer and winter emissions. No exceedances of any criteria pollutants are expected. Standard measures are documented in the CalEEMod output in Attachment B.

Table H: Diesel Construction Equipment Used by Construction Phase

Construction Phase	Off-Road Equipment Type	Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.4
	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.4
	Scrapers	2	8	367	0.48
	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38

Source: Compiled by LSA using CalEEMod defaults (November 2022).
CalEEMod = California Emissions Estimator Model

Table I: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Site Preparation	3	28	19	<1	9	1	5	1
Grading	3	35	29	<1	4	1	2	1
Building Construction	3	20	28	<1	4	<1	<1	<1
Architectural Coating	23	1	4	<1	<1	<1	<1	<1
Paving	2	10	15	<1	<1	<1	<1	<1
Peak Daily	**26**	**35**	**29**	**<1**	**10**		**6**	
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**		**65**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (November 2022).
It was assumed that the architectural coatings would be applied during the building construction phase. PM_{10} and $PM_{2.5}$ fugitive emissions are from the Mitigated results; the only "mitigation" measures applied in this modeling are required dust control measures per MDAQMD Rule 403.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Fugitive Dust. Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

The construction calculations prepared for this project assumed that dust control measures (watering a minimum of two times daily consistent with MDAQMD Rule 403) would be employed to reduce emissions of fugitive dust during site grading. Furthermore, all construction would need to comply with MDAQMD Rule 403 regarding the emission of fugitive dust. Table J lists total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) that have incorporated the following Rule 403 measures that would be implemented to significantly reduce PM_{10} emissions from construction:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

These Rule 403 measures were incorporated in the CalEEMod analysis.

Architectural Coatings. Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 26 pounds per day (lbs/day) of VOCs. Therefore, VOC emissions from architectural-coating application would not exceed the MDAQMD VOC threshold of 137 lbs/day.

Odors from Construction Activities. Heavy-duty equipment in the project area during construction would emit odors, primarily from the equipment exhaust. However, the construction-produced odors would cease to occur after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project, and no mitigation measures are required.

MDAQMD Rule 402 regarding nuisances states,

> *"A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."*

The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

Construction Emissions Conclusions. Table J shows that daily regional construction emissions would not exceed the daily thresholds of any criteria pollutant emissions thresholds established by MDAQMD; thus, during construction, there would be no air quality impacts.

Operational Emissions

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

The proposed project would generate emissions from daily operations and a large amount of heavy-duty truck trips from warehouse operations. It was assumed there would be standard warehouse equipment, and to analyze the worst case, it was assumed they would all be diesel-powered. The *GTS Cold Storage Project Trip Generation and Vehicle Miles Traveled Memorandum* (LSA 2022) determined that the project would generate 563 car, 56 two-axle truck, 45 three-axle truck, and 153 four-plus axle truck trips daily. As the distance the haul trucks will travel is unknown, it was conservatively assumed the average truck trip length would be 40 miles. PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

The proposed project would include refrigeration equipment that would consist of 26 evaporator coils, two gas coolers, and four CO_2 packages on the rooftop of the proposed warehouse building. It was assumed that the only emissions from this equipment would be negligible fugitive emissions.

The proposed project would include a fire pump, which includes a 324-horsepower, six-cylinder diesel engine. The fire pump would only be used during an emergency event and was included in CalEEMod to normally operated 1 hour per month for maintenance and testing.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, such as renewable energy, producing fewer emissions than conventional sources.

Typically, area source emissions consist of direct sources of air emissions at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment and the use of consumer products.

Emission estimates for operation of the project were calculated using CalEEMod and are shown in Table J, below. The peak daily emissions associated with project operations are identified in Table L for VOC, nitrogen oxides (NO_X), CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$.

The results shown in Table J indicate the project would not exceed the significance criteria for daily VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions; therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Emission calculations sheets are attached (Attachment B).

Table J: Project Operation Emissions (lbs/day)

Source Category	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions	9	<1	<1	0	<1	<1
Energy Source Emissions	<1	5	4	<1	<1	<1
Mobile Source Emissions	2	19	24	<1	10	3
Fire Pump Emissions	<1	<1	<1	<1	<1	<1
Total Project Emissions	**11**	**25**	**29**	**<1**	**11**	**3**
MDAQMD Significance Threshold	**137**	**137**	**548**	**82**	**65**	**137**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2022).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
MDAQMD = Mojave Desert Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

Objectionable Odors. MDAQMD addresses odor criteria within the CEQA Handbook. The MDAQMD has not established a rule or standard regarding odor emissions, rather, the MDAQMD has a nuisance rule: "Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact."

The proposed project is not known to include any activities or operations that would generate objectionable odors, nor are there any sensitive receptors near the project site. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Greenhouse Gas Impacts

Generation of Greenhouse Gas Emissions

This section discusses the project's impacts related to the release of GHG emissions for the construction and operational phases of the project.

Emissions Background

Construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation.

Overall, the following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions.

Construction Activities. Construction activities associated with maximum buildout would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

As shown in Table K, the project construction emissions would total 1,181 MT CO_2e. (See the CalEEMod output in Attachment B for details.)

Table K: Construction Greenhouse Gas Emissions

Construction Phase	Total Emissions per Phase (MT)			Total Emissions per Phase (MT CO_2e)
	CO_2	CH_4	N_2O	
Site Preparation	17	<1	<1	17
Grading	84	<1	<1	84
Building Construction	1,012	<1	<1	1,032
Architectural Coating	26	<1	<1	26
Paving	21	<1	<1	21
Total Emissions for the Entire Construction Process				**1,181**

Source: Compiled by LSA (November 2022).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT CO_2e = metric tons of carbon dioxide equivalent
MT = metric tons
N_2O = nitrous oxide

Operational GHG Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle and truck trips to and from the project site. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project-generated waste.

As described above, the proposed project would include refrigeration equipment that would use CO_2 as the cooling agent. It was assumed that the only CO_2 emissions from this equipment would be negligible fugitive emissions. Also as described above, the fire pump, which includes a 324-horsepower, six-cylinder diesel engine that would only be used during an emergency event and normally operated 1 hour per month for maintenance and testing.

As shown in Table L, the project would generate 4,549 MT CO_2e per year.

Table L: Long-Term Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT per year)					
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Area	0	<1	<1	<1	0	<1
Energy	0	1,748	1,748	<1	<1	1,758
Mobile	0	2,416	2,416	<1	<1	2,490
Fire Pump	0	1	1	<1	0	1
Waste	55	0	55	3	0	137
Water	14	103	117	1	<1	164
Total Project Emissions	**69**	**4,268**	**4,337**	**5**	**0**	**4,549**

Source: Compiled by LSA (November 2022).
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT = metric tons
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2

Project GHG Impact Assessment

To determine the significance of project related emissions, the project was evaluated under the Town's GHG Screening Tables. The GHG Screening Tables have a range of point values assigned for each project design aspect incorporated into a project as a project design feature or mitigation. Projects that garner at least 100 points are considered to be consistent with the reduction quantities anticipated in the DRP and thus would be determined to have a less than significant individual and cumulative impact on GHG emissions per the *State CEQA Guidelines*.

The Screening Tables use a base level of efficiency that corresponds to the California Building Energy Efficiency Standards for Residential and Non-residential Buildings (Title 24, Part 6) that became effective January 1, 2020. These are the statewide minimum requirements of efficiency that are currently in effect. As demonstrated in Table M, the project would apply San Bernardino County's *Greenhouse Gas Emissions Reduction Plan Update* performance standards, adhere to State requirements, and result in project-level and cumulative GHG emissions that would be less than significant.

Table M shows the GHG Screening Table and the points the project achieves with project features.

Table M: Project GHG Screening Table—Commercial/Industrial Project

Reduction Measure R2E7: Commercial/Industrial Energy Efficiency Development			
Building Envelope			
Insulation	2008 baseline (walls R-13; roof/attic R-30) Modestly Enhanced Insulation (walls R-13, roof/attic R-38)) Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) Greatly Enhanced Insulation (spray foam insulated walls R-15 or higher, roof/attic R-38 or higher)	0 points 15 points 18 points 20 points	18
Windows	2008 Baseline Windows (0.57 U-factor, 0.4 solar heat gain coefficient [SHGC}) Modestly Enhanced Window Insulation (0.4 U-factor, 0.32 SHGC) Enhanced Window Insulation (0.32 U-factor, 0.25 SHGC)	0 points 7 points 8 points 12 points	8

Table M: Project GHG Screening Table—Commercial/Industrial Project

	Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less SHGC)		
Cool Roof	Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance) Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance) Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	12 points 14 points 16 points	14
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent) Blower Door HERS Verified Envelope Leakage or equivalent	 12 points 10 points	12
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.		24
	Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	4 points	
	Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	6 points	
	Enhanced Thermal Mass (80% of floor or 80% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	24 points	
Indoor Space Efficiencies			
Heating/ Cooling Distribution System	Minimum Duct Insulation (R-4.2 required) Modest Duct insulation (R-6) Enhanced Duct Insulation (R-8) Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	0 points 8 points 10 points 14 points	10
Space Heating/ Cooling Equipment	2008 Minimum HVAC Efficiency (EER 13/60% AFUE or 7.7 HSPF) Improved Efficiency HVAC (EER 14/65% AFUE or 8 HSPF) High Efficiency HVAC (EER 15/72% AFUE or 8.5 HSPF) Very High Efficiency HVAC (EER 16/80% AFUE or 9 HSPF)	0 points 7 points 8 points 12 points	12
Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
Water Heaters	2008 Minimum Efficiency (0.57 Energy Factor)	0 points	16
	Improved Efficiency Water Heater (0.675 Energy Factor)	14 points	
	High Efficiency Water Heater (0.72 Energy Factor)	16 points	

Table M: Project GHG Screening Table—Commercial/Industrial Project

	Very High Efficiency Water Heater (0.92 Energy Factor)	19 points	
	Solar Pre-heat System (0.2 Net Solar Fraction) Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	4 points 8 points	
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		5
	All peripheral rooms within building have at least one window or skylight	1 points	
	All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.)	5 points	
	All rooms daylighted	7 points	
Artificial Lighting	2008 Minimum (required) Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt)	0 points	12
	High Efficiency Lights (50% of in-unit fixtures are high efficacy) Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)	12 points 14 points	
Appliances	Star Commercial Refrigerator (new) Energy Star Commercial Dish Washer (new) Energy Star Commercial Cloths Washing	4 points 4 points 4 points	4
Miscellaneous Commercial/Industrial Building Efficiencies			
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	6 point	
Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on Jun 21st.	6 Points	6
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Existing Commercial building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing commercial buildings within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the City Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated based upon, but not limited to the following:	TBD	
	Will the energy efficiency retrofit project benefit low income or disadvantaged communities?		
	Does the energy efficiency retrofit project fit within the overall assumptions in the reduction measure associated with commercial building energy efficiency retrofits?		
	Does the energy efficiency retrofit project provide co-benefits important to the City?		

Table M: Project GHG Screening Table—Commercial/Industrial Project

	Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.		
Reduction Measure R2E9 and R2E10: New Commercial/Industrial Renewable Energy			
Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments:		44
	Solar Ready Roofs (sturdy roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	2 points 8 points 14 points 20 points 26 points 32 points 38 points 44 points 50 points 56 points 60 points	
Wind Turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Wind turbines as part of the commercial development such that the total power provided augments:		
	10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	8 points 14 points 20 points 26 points 32 points 38 points 44 points 50 points 56 points 60 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing commercial/industrial that will help implement reduction measures associated with existing buildings. These off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	

Table M: Project GHG Screening Table—Commercial/Industrial Project

Reduction Measure R2E7: Warehouse Renewable Energy Incentive Program			
Warehouse Photovoltaic	This measure is for warehouse projects and involves partnership with Sothern California Edison and California Public Utilities Commissions to develop an incentive program for solar installation on new and retrofit existing warehouses. A mandatory minimum solar requirement for new warehouse space. Solar Photovoltaic panels installed on warehouses or in collective arrangements within a logistics/warehouse complex such that the total power provided augments:		
	Solar Ready Roof (sturdy roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	2 points 4 points 5 points 7 points 9 points 11 points 13 points 15 points 17 points 19 points 21 points	15
Reduction Measure R2WC1: R2WC-1: Per Capita Water Use Reduction Commercial/Industrial			
Irrigation and Landscaping			
Water Efficient Landscaping	Eliminate conventional turf from landscaping Only moderate water using plants Only low water using plants Only California Native landscape that requires no or only supplemental irrigation	0 points 3 points 4 points 8 points	3
Trees	Increase tree planting in parking areas 50% beyond City Code requirements	TBD	
Water Efficient irrigation systems	Low precipitation spray heads< .75”/hr or drip irrigation Weather based irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	1 point 5 points	5
Recycled Water	Recycled water connection (purple pipe) to irrigation system on site	5 points	
Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
Potable Water			
Showers	Water Efficient Showerheads (2.0 gpm)	3 points	
Toilets	Water Efficient Toilets/Urinals (1.5gpm) Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6	4 points	4
Faucets	Water Efficient faucets (1.28gpm)	3 points	
Commercial Dishwashers	Water Efficient dishwashers (20% water savings)	4 points	

Table M: Project GHG Screening Table—Commercial/Industrial Project

Commercial Laundry Washers	Water Efficient laundry (15% water savings) High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)	3 points 6 points	
Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
Reduction Measure R2T2: Employment Based Trip and VMT Reduction Policy			
Compressed Work Week	Reduce the number of days per week that employees need to be on site will reduce the number of vehicle trips associated with commercial/industrial development. Compressed work week such that full time employees are on site: days per week		
	5 days per week 4 days per week on site 3 days per week on site	0 points 4 points 8 points	
Car/Vanpools	Car/vanpool program Car/vanpool program with preferred parking Car/vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program Combination of all the above	1 point 2 points 3 points 5 points 6 points	
Employee Bicycle/ Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks	1 point 1 point 1 point	
	Showers and changing facilities Subsidized employee walk/bike program Note combine all applicable points for total value	2 points 3 points	
Shuttle/Transit Programs	Local transit within ¼ mile transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized Transit passes Note combine all applicable points for total value	1 point 3 points 5 points 1 points 2 points	
CRT	Employer based Commute Trip Reduction (CRT). CRTs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a TIA that demonstrates the trip/VMT reductions. Suggested point ranges: Incentive based CRT Programs (1-8 points) Mandatory CRT programs (5-20 points)	TBD	
Other Trip Reductions	Other trip or VMT reduction measures not listed above with TIA and/or other traffic data supporting the trip and/or VMT for the project.	TBD	
Reduction Measure R2T4: Signal Synchronization and Intelligent Traffic Systems			
Signal improvements	Signal synchronization-1 point per signal Traffic signals connected to ITS	1 point/signal 3 points/ signal	

Table M: Project GHG Screening Table—Commercial/Industrial Project

Reduction Measure R2T5: Renewable Fuel/Low Emissions Vehicles (EV Charging Stations)			
Electric Vehicles	Provide public charging station for use by an electric vehicle (ten points for each charging station within the facility).	10 points	30
Reduction Measure R2T6: Vehicle Trip Reduction Measures			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Local Retail Near Residential (Commercial only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Reduction Measure R2W5: Construction and Demolition Debris Diversion Program			
Recycling of Construction/ Demolition Debris	Recycle 2% of debris (required) Recycle 5% of debris Recycle 8 % of debris Recycle 10% of debris Recycle 12% of debris Recycle 15% of debris Recycle 20% of debris	0 points 1 point 2 points 3 points 4 points 5 points 6 points	3
Reduction Measure R2W6: 75 Percent Solid Waste Diversion Program			
Recycling	County initiated recycling program diverting 75% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the County fulfill this goal: ● Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up ● Provide commercial/industrial recycling programs that fulfills an on-site goal of 75% diversion of solid waste	2 points 5 points	2
Total Points from Commercial/Industrial Project:			**247**

Source: County of San Bernardino GHG Screening Tables and Project Plans
hr = hour
gpm = gallons per minute
GHG = greenhouse gas
TIA = Transportation Impact Analysis
VMT = vehicle miles traveled

As shown in Table M, the project would achieve 247 points based on the point values assigned for the project features that have been incorporated into the design. These points exceed the minimum 100 points needed for screening purposes. Therefore, the project would be considered consistent with the County and Town's GHG reduction strategies. Projects that garner at least 100 points are considered to be consistent with the reduction quantities anticipated in the DRP and thus would be determined to have a less than significant individual and cumulative impact on GHG emissions per the CEQA Guidelines.

Energy

The proposed project would increase the demand for electricity, natural gas, and gasoline when compared to the existing condition of the site. The discussion and analysis provided below is based on the data included in the CalEEMod output, which is included as Attachment B.

Construction-Period Energy Use

The anticipated construction schedule assumes that the proposed project would be built over approximately 16 months. The proposed project would require site preparation, grading, building construction, paving, and architectural coating during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials and for preparation of the site for grading activities and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities.

Construction activities are not anticipated to result in an inefficient use of energy because gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

Operational Energy Use

Energy use includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage for heating, while indirect sources include electricity generated by off-site power plants. Natural gas use in CalEEMod is measured in units of a thousand British thermal units (kBTU) per year; however, this analysis converts the results to natural gas in units of therms. Electricity use in CalEEMod is measured in kWh per year.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24 (e.g., space heating, space cooling, water heating, and ventilation). Non-Title 24 uses include all other end uses (e.g., appliances, electronics, and other miscellaneous plug-in uses). Because some lighting is not considered as part of the building envelope energy budget, CalEEMod considers lighting as a separate electricity use category.

For natural gas, uses are likewise categorized as Title 24 or non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include appliances.

Table N shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic analysis (see Attachment C) in conjunction with DOT fuel efficiency data.

Table N: Estimated Annual Energy Use of the Proposed Project

Land Use	Electricity Use (kWh/yr)	Natural Gas Use (kBTU/yr)	Gasoline (gal/yr)	Diesel (gal/yr)
Industrial	3,861,864	19,916,300	124,146	209,934

Source: Compiled by LSA (November 2022).
gal/yr = gallons per year
kBTU/yr = thousand British thermal units per year
kWh/yr = kilowatt-hours

As shown in Table N, the estimated potential increased electricity demand associated with the proposed project is 3,861,864 kWh per year. In 2019, California consumed approximately 277,750 GWh or 277,750,000,000 kWh. Of this total, San Bernardino County consumed 15,969 GWh or 15,969,000,000 kWh (CEC n.d.-a). Therefore, electricity demand associated with the proposed project would be approximately 0.02 percent of San Bernardino County's total electricity demand.

Also shown in Table N, the estimated potential increased natural gas demand associated with the proposed project is 19,916,300 kBTU per year or 199,163 therms (CEC n.d.-b). In 2019, California consumed approximately 12,571,000,000 therms, while San Bernardino County consumed 527,236,428 therms. Therefore, natural gas demand associated with the proposed project would be 0.04 percent of San Bernardino County's total natural gas demand.

Furthermore, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The average fuel economy for light-duty vehicles (automobiles, pickups, vans, and sport utility vehicles) in the United States has steadily increased, from about 14.9 mpg in 1980 to 22.2 mpg in 2019 (DOT 2021). The average fuel economy for heavy-duty trucks in the United States has also steadily increased, from 5.7 mpg in 2013 to a projected 8.0 mpg in 2021 (CEC 2015).

Using the EPA gasoline fuel economy estimates for 2019, the California diesel fuel economy estimates for 2021, and the traffic data from the project traffic analyses, the proposed project would result in the annual consumption of 124,146 gallons of gasoline and 209,934 gallons of diesel fuel. In 2019, vehicles in California consumed approximately 15.6 billion gallons of gasoline and 3.8 billion gallons of diesel fuel (CEC n.d.-c). Therefore, gasoline and diesel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California and, by extension, in San Bernardino County.

In addition, vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

Energy Use Summary

As described above, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy

efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation measures would be necessary.

Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level and because the project's total impacts to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's *2021 Integrated Energy Policy Report*. In addition, the proposed project would comply with Title 24 and CALGreen standards. Thus, as shown above, the proposed project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and would not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant, and no mitigation measures would be necessary.

CONCLUSION

Based on the analysis presented above, operational emissions associated with the proposed project would not exceed MDAQMD established significance thresholds. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed project would also not result in objectionable odors affecting a substantial number of people. GHG emissions released during construction and operation of the project are estimated to be lower than significance thresholds and would not be cumulatively considerable. Additionally, the project would not conflict with the goals and objectives of a State or regional plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions, nor result in the wasteful, inefficient, or unnecessary consumption of energy resources.

REFERENCES

California Air Resources Board (CARB). 2012. California Air Resources Board Approves Advanced Clean Car Rules. January 27. Website: www.arb.ca.gov/news/california-air-resources-board-approves-advanced-clean-car-rules (accessed November 2022).

__. 2013. Amendments to California Cap-and-Trade Program. April 9. Website: www.arb.ca.gov/sites/default/files/classic//cc/capandtrade/linkage/resolution13-7.pdf (accessed November 2022).

__. 2017. Climate Change Scoping Plan: A Framework for Change. Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan (accessed November 2022).

———. 2022a. Common Air Pollutants. Website: www.arb.ca.gov/resources/common-air-pollutants (accessed November 2022).

———. 2022b. State and Federal Area Designations. February. Website: www.arb.ca.gov/desig/desig.htm (accessed November 2022).

———. 2022c. iADAM: Air Quality Data Statistics. Website: www.arb.ca.gov/adam/topfour/topfour1.php (accessed November 2022).

———. 2022d. 2022 Scoping Plan for Achieving Carbon Neutrality.

California Department of Public Health (CDPH). 2014. Website: www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CCHEP-General/CDPH_CC-and-Health-Equity-Issue-Brief.pdf (accessed November 2022).

———. 2019. Climate Change and Health Equity. May. Website: https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CCHEP-General/CDPH_CC-and-Health-Equity-Issue-Brief.pdf (accessed November 2022).

California Department of Resources Recycling and Recovery (CalRecycle). 2019a. Construction and Demolition Debris Recycling. Website: www.calrecycle.ca.gov/ConDemo (accessed November 2022).

———. 2019b. CalRecycle Homepage. Website: www.calrecycle.ca.gov (accessed November 2022).

California Energy Commission (CEC). 2015. Medium and Heavy-Duty Truck Prices and Fuel Economy 2013–2026. Website: efiling.energy.ca.gov/getdocument.aspx?tn=206180 (accessed November 2022).

———. n.d.-a. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed November 2022).

———. n.d.-b. Gas Consumption by County. Website: ecdms.energy.ca.gov/gasbycounty.aspx (accessed November 2022).

———. n.d.-c. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed November 2022).

County of San Bernardino. 2015. Development Review Processes. March. Website: www.sbcounty.gov/Uploads/lus/GreenhouseGas/FinalGHGUpdate.pdf (accessed November 2022).

_____ . 2021. Regional Greenhouse Gas Reduction Plan Update. Website: www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/ (accessed November 2022.)

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis, Fourth Assessment. Website: www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf (accessed November 2022).

_____. 2021. Climate Change 2021: The Physical Science Basis. Website: www.ipcc.ch/report/ar6/wg1/ (accessed November 2022).

LSA. 2022. *GTS Cold Storage Project Trip Generation and Vehicle Miles Traveled Memorandum*, September 16.

Mojave Desert Air Quality Management District (MDAQMD). 2020a. *California Environmental Quality Act (CEQA) And Federal Conformity Guidelines*. February. Website: www.mdaqmd.ca.gov/home/showpublisheddocument/8510/637406182097070000 (accessed November 2022).

_____. 2020b. Rule 403. Fugitive Dust. Website: www.mdaqmd.ca.gov/home/showpublisheddocument/8482/637393282546170000 (accessed November 2022).

_____. 2020c. Rule 1113. Website: www.mdaqmd.ca.gov/home/showpublisheddocument/8480/637955732942870000 (accessed November 2022).

_____. n.d.-a Rules & Regulations. Website: www.mdaqmd.ca.gov/rules/overview (accessed November 2022).

_____. n.d.-a. MDAQMD Attainment Status. Website: www.mdaqmd.ca.gov/home/showpublisheddocument/1267/636337468837000000 (accessed November 2022).

Pew Center. 2006. *Pew Center on Global Climate Change and the Pew Center on the States, Climate Change 101: Understanding and Responding to Global Climate Change*. October.

Southern California Edison (SCE). n.d. Who We Are. Website: www.sce.com/about-us/who-we-are. (accessed November 2022).

Southern California Gas Company (SoCalGas). n.d. Company Profile. Website: www.socalgas.com/about-us/company-profile. (accessed November 2022).

Town of Apple Valley. 2009. *2009 General Plan*. August. Website: www.applevalley.org/services/planning-division/2009-general-plan (accessed November 2022).

_____. 2021. *Climate Action Plan 2019 Update*. May. Website: www.applevalley.org/home/showpublisheddocument/31233/637623641454430000 (accessed November 2022).

United States Department of Transportation (DOT). 2021. Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles. Website: www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles (accessed November 2022).

United States Environmental Protection Agency (EPA). 2021a. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks (accessed November 2022).

. 2021b. Air Data: Air Quality Data Collected at Outdoor Monitors across the US. Website: www.epa.gov/outdoor-air-quality-data (accessed November 2022).

. 2021c. Nonattainment Areas for Criteria Pollutants (Green Book). Website: www.epa.gov/green-book (accessed November 2022).

. 2021d. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026. Website: www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-proposed (accessed November 2022).

. 2021e. Regulations for Emissions from Vehicles and Engines. Website: www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards-and (accessed November 2022)

. n.d. AirData Air Quality Monitors Website: epa.maps.arcgis.com/ (accessed November 2022).

Attachments: A – Figures
B – CalEEMod Output
C – Fuel Usage Worksheet

ATTACHMENT A

FIGURES

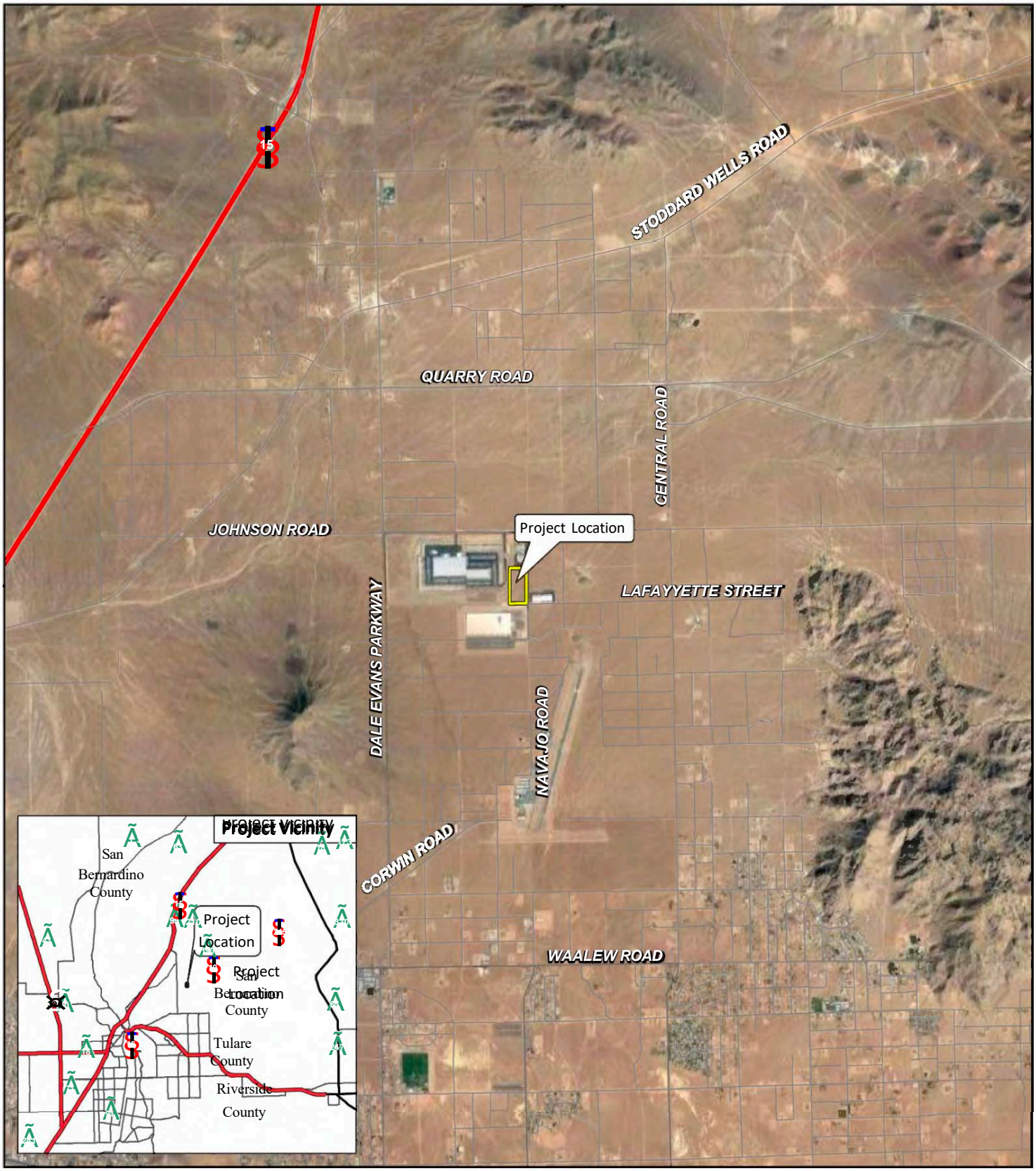

FIGURE 1

SOURCE: ESRI Streetmap, 2021; Google Earth, 2018.

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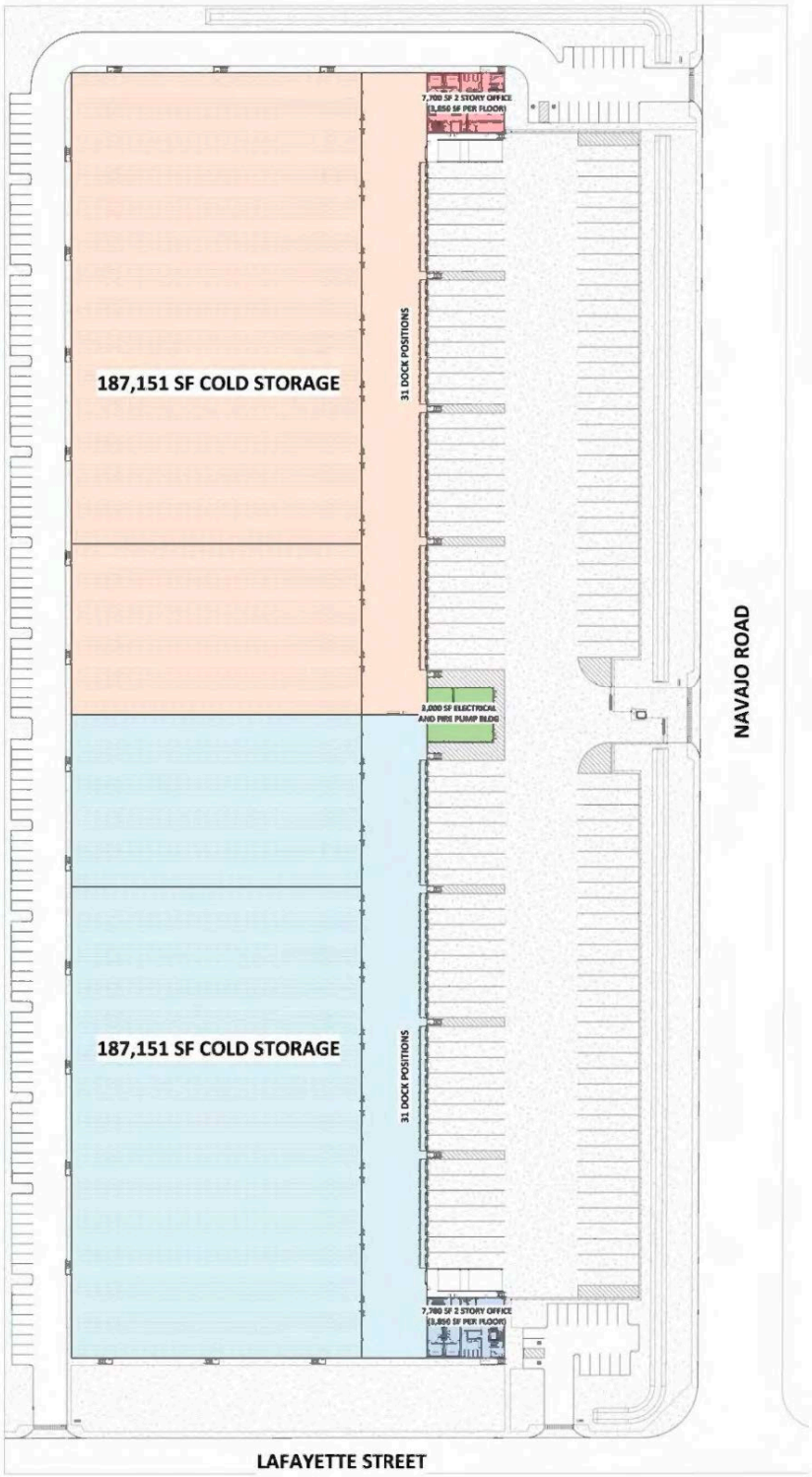
GTA Cold Storage Project

Regional and Project Location



LSA

FIGURE 2

N

NOT TO SCALE

SOURCE: Fisher Construction Group

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GTA Cold Storage Project

Conceptual Site Plan

ATTACHMENT B

CALEEMOD OUTPUT

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

GTS Cold Storage - Apple Valley

Mojave Desert Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	385.00	1000sqft	8.84	385,004.00	0
Other Non-Asphalt Surfaces	87.72	1000sqft	2.01	87,724.00	0
Parking Lot	311.13	1000sqft	7.14	311,129.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Net site size: 17.68 acre

Construction Phase - Construction planned to start in April 2023, end in 2024. Used default durations, except assumed architectural coatings would be applied during the Building Construction phase.

Architectural Coating - Coatings would comply with MDAQMD Rule 1113.

Vehicle Trips - Trip rate from traffic study. Assumed 3- and 4+-axle truck trip lengths would average 40 miles.

Area Coating - Coatings would comply with MDAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by MDAQMD Rule 403.

Energy Mitigation - Approximation of the percent solar would provide based on plans.

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Water Mitigation - Approximation of water reduction percentage based on plans.

Operational Off-Road Equipment - Six forklifts and six material handling equipment planned, all would be electrically-powered

Fleet Mix - Fleet mix from traffic study.

Stationary Sources - Emergency Generators and Fire Pumps - Assume Fire Pump testing would be one hour monthly.

Sequestration -

Area Mitigation -

Waste Mitigation - Approximation of waste reduction percentage based on plans.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintParkingValue	50	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	PhaseEndDate	9/13/2024	7/19/2024
tblConstructionPhase	PhaseStartDate	8/17/2024	4/1/2024
tblFleetMix	HHD	0.02	0.19
tblFleetMix	LDA	0.53	0.55
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.17	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.7960e-003	0.03

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.03
tblFleetMix	MH	5.7520e-003	0.00
tblFleetMix	MHD	7.1140e-003	0.06
tblFleetMix	OBUS	5.2000e-004	0.00
tblFleetMix	SBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.9400e-004	0.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblSequestration	NumberOfNewTrees	0.00	150.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	324.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.03
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CNW_TTP	41.00	75.76
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	59.00	24.24
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00

2.0 Emissions Summary

2.1 Overall Construction

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

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					
2023	0.2782	2.2042	2.5979	6.9500e-003	0.5113	0.0862	0.5975	0.1799	0.0806	0.2604	0.0000	628.2395	628.2395	0.0807	0.0312	639.5459
2024	1.1413	1.5195	2.1681	5.8700e-003	0.2768	0.0556	0.3324	0.0750	0.0524	0.1274	0.0000	532.0262	532.0262	0.0524	0.0287	541.8863
Maximum	**1.1413**	**2.2042**	**2.5979**	**6.9500e-003**	**0.5113**	**0.0862**	**0.5975**	**0.1799**	**0.0806**	**0.2604**	**0.0000**	**628.2395**	**628.2395**	**0.0807**	**0.0312**	**639.5459**

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					
2023	0.2782	2.2042	2.5979	6.9500e-003	0.3814	0.0862	0.4676	0.1220	0.0806	0.2025	0.0000	628.2391	628.2391	0.0807	0.0312	639.5455
2024	1.1413	1.5195	2.1681	5.8700e-003	0.2768	0.0556	0.3324	0.0750	0.0524	0.1274	0.0000	532.0259	532.0259	0.0524	0.0287	541.8861
Maximum	**1.1413**	**2.2042**	**2.5979**	**6.9500e-003**	**0.3814**	**0.0862**	**0.4676**	**0.1220**	**0.0806**	**0.2025**	**0.0000**	**628.2391**	**628.2391**	**0.0807**	**0.0312**	**639.5455**

	ROG	NOx	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Percent Reduction	0.00	0.00	0.00	0.00	16.49	0.01	13.98	22.73	0.00	14.94	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-3-2023	7-2-2023	0.9979	0.9979
2	7-3-2023	10-2-2023	0.7432	0.7432
3	10-3-2023	1-2-2024	0.7480	0.7480
4	1-3-2024	4-2-2024	0.7175	0.7175
5	4-3-2024	7-2-2024	1.4981	1.4981
6	7-3-2024	9-30-2024	0.3951	0.3951
		Highest	1.4981	1.4981

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6221	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149
Energy	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	3,802.3446	3,802.3446	0.2516	0.0475	3,822.7931
Mobile	0.2510	3.5375	3.8650	0.0256	1.7794	0.0410	1.8204	0.4825	0.0391	0.5216	0.0000	2,415.7239	2,415.7239	0.0242	0.2466	2,489.8056
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	3.1900e-003	8.9200e-003	8.1300e-003	2.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.4805	1.4805	2.1000e-004	0.0000	1.4857
Waste						0.0000	0.0000		0.0000	0.0000	73.4624	0.0000	73.4624	4.3415	0.0000	182.0001
Water						0.0000	0.0000		0.0000	0.0000	28.2455	205.5924	233.8379	2.9184	0.0706	327.8389

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

Total	**1.9836**	**4.5228**	**4.7004**	**0.0315**	**1.7794**	**0.1157**	**1.8951**	**0.4825**	**0.1138**	**0.5963**	**101.7079**	**6,425.1555**	**6,526.8634**	**7.5360**	**0.3647**	**6,823.9383**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6221	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149
Energy	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	1,747.6916	1,747.6916	0.0782	0.0265	1,757.5406
Mobile	0.2510	3.5375	3.8650	0.0256	1.7794	0.0410	1.8204	0.4825	0.0391	0.5216	0.0000	2,415.7239	2,415.7239	0.0242	0.2466	2,489.8056
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	3.1900e-003	8.9200e-003	8.1300e-003	2.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.4805	1.4805	2.1000e-004	0.0000	1.4857
Waste						0.0000	0.0000		0.0000	0.0000	55.0968	0.0000	55.0968	3.2561	0.0000	136.5000
Water						0.0000	0.0000		0.0000	0.0000	14.1228	102.7962	116.9190	1.4592	0.0353	163.9195
Total	**1.9836**	**4.5228**	**4.7004**	**0.0315**	**1.7794**	**0.1157**	**1.8951**	**0.4825**	**0.1138**	**0.5963**	**69.2196**	**4,267.7063**	**4,336.9259**	**4.8180**	**0.3084**	**4,549.2663**

	ROG	NOx	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**	**31.94**	**33.58**	**33.55**	**36.07**	**15.44**	**33.33**

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

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	110.1000
Total	**110.1000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/3/2023	4/14/2023	5	10	
2	Grading	Grading	4/15/2023	5/26/2023	5	30	
3	Building Construction	Building Construction	5/27/2023	7/19/2024	5	300	
4	Paving	Paving	7/20/2024	8/16/2024	5	20	
5	Architectural Coating	Architectural Coating	4/1/2024	7/19/2024	5	80	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 577,506; Non-Residential Outdoor: 192,502; Striped Parking Area: 23,931

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OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	128.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

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

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.2800e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5660	0.5660	2.0000e-005	2.0000e-005	0.5717
Total	**2.8000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5660**	**0.5660**	**2.0000e-005**	**2.0000e-005**	**0.5717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0442**	**6.3300e-003**	**0.0506**	**0.0227**	**5.8200e-003**	**0.0286**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

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					

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.2800e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5660	0.5660	2.0000e-005	2.0000e-005	0.5717
Total	**2.8000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5660**	**0.5660**	**2.0000e-005**	**2.0000e-005**	**0.5717**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.1381**	**0.0214**	**0.1594**	**0.0548**	**0.0197**	**0.0745**	**0.0000**	**81.8028**	**81.8028**	**0.0265**	**0.0000**	**82.4642**

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

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

Category	tons/yr										MT/yr					
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	9.2000e-004	6.6000e-004	7.5900e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8866	1.8866	6.0000e-005	6.0000e-005	1.9055
Total	**9.2000e-004**	**6.6000e-004**	**7.5900e-003**	**2.0000e-005**	**2.4200e-003**	**1.0000e-005**	**2.4300e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8866**	**1.8866**	**6.0000e-005**	**6.0000e-005**	**1.9055**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0621	0.0000	0.0621	0.0247	0.0000	0.0247	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.0621**	**0.0214**	**0.0835**	**0.0247**	**0.0197**	**0.0443**	**0.0000**	**81.8027**	**81.8027**	**0.0265**	**0.0000**	**82.4641**

Mitigated Construction Off-Site

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	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	9.2000e-004	6.6000e-004	7.5900e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8866	1.8866	6.0000e-005	6.0000e-005	1.9055
Total	**9.2000e-004**	**6.6000e-004**	**7.5900e-003**	**2.0000e-005**	**2.4200e-003**	**1.0000e-005**	**2.4300e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8866**	**1.8866**	**6.0000e-005**	**6.0000e-005**	**1.9055**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1219	1.1148	1.2589	2.0900e-003		0.0542	0.0542		0.0510	0.0510	0.0000	179.6487	179.6487	0.0427	0.0000	180.7171
Total	**0.1219**	**1.1148**	**1.2589**	**2.0900e-003**		**0.0542**	**0.0542**		**0.0510**	**0.0510**	**0.0000**	**179.6487**	**179.6487**	**0.0427**	**0.0000**	**180.7171**

Unmitigated Construction Off-Site

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	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	0.0139	0.3771	0.1723	1.9600e-003	0.0663	3.2100e-003	0.0695	0.0191	3.0700e-003	0.0222	0.0000	187.2630	187.2630	7.9000e-004	0.0262	195.0763
Worker	0.0782	0.0561	0.6448	1.7500e-003	0.2056	1.0400e-003	0.2066	0.0546	9.6000e-004	0.0556	0.0000	160.3471	160.3471	5.2100e-003	4.9400e-003	161.9506
Total	**0.0920**	**0.4331**	**0.8171**	**3.7100e-003**	**0.2719**	**4.2500e-003**	**0.2761**	**0.0737**	**4.0300e-003**	**0.0778**	**0.0000**	**347.6100**	**347.6100**	**6.0000e-003**	**0.0311**	**357.0269**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1219	1.1148	1.2589	2.0900e-003		0.0542	0.0542		0.0510	0.0510	0.0000	179.6485	179.6485	0.0427	0.0000	180.7169
Total	**0.1219**	**1.1148**	**1.2589**	**2.0900e-003**		**0.0542**	**0.0542**		**0.0510**	**0.0510**	**0.0000**	**179.6485**	**179.6485**	**0.0427**	**0.0000**	**180.7169**

Mitigated Construction Off-Site

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	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	0.0139	0.3771	0.1723	1.9600e-003	0.0663	3.2100e-003	0.0695	0.0191	3.0700e-003	0.0222	0.0000	187.2630	187.2630	7.9000e-004	0.0262	195.0763
Worker	0.0782	0.0561	0.6448	1.7500e-003	0.2056	1.0400e-003	0.2066	0.0546	9.6000e-004	0.0556	0.0000	160.3471	160.3471	5.2100e-003	4.9400e-003	161.9506
Total	**0.0920**	**0.4331**	**0.8171**	**3.7100e-003**	**0.2719**	**4.2500e-003**	**0.2761**	**0.0737**	**4.0300e-003**	**0.0778**	**0.0000**	**347.6100**	**347.6100**	**6.0000e-003**	**0.0311**	**357.0269**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1067	0.9747	1.1721	1.9500e-003		0.0445	0.0445		0.0418	0.0418	0.0000	168.0906	168.0906	0.0398	0.0000	169.0843
Total	**0.1067**	**0.9747**	**1.1721**	**1.9500e-003**		**0.0445**	**0.0445**		**0.0418**	**0.0418**	**0.0000**	**168.0906**	**168.0906**	**0.0398**	**0.0000**	**169.0843**

Unmitigated Construction Off-Site

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	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	0.0126	0.3490	0.1562	1.8000e-003	0.0620	3.0100e-003	0.0650	0.0179	2.8800e-003	0.0208	0.0000	171.5523	171.5523	7.1000e-004	0.0239	178.6953
Worker	0.0677	0.0464	0.5561	1.5800e-003	0.1923	9.2000e-004	0.1932	0.0511	8.4000e-004	0.0519	0.0000	145.1641	145.1641	4.4000e-003	4.2800e-003	146.5492
Total	**0.0803**	**0.3954**	**0.7123**	**3.3800e-003**	**0.2543**	**3.9300e-003**	**0.2582**	**0.0690**	**3.7200e-003**	**0.0727**	**0.0000**	**316.7163**	**316.7163**	**5.1100e-003**	**0.0282**	**325.2445**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1067	0.9747	1.1721	1.9500e-003		0.0445	0.0445		0.0418	0.0418	0.0000	168.0904	168.0904	0.0398	0.0000	169.0841
Total	**0.1067**	**0.9747**	**1.1721**	**1.9500e-003**		**0.0445**	**0.0445**		**0.0418**	**0.0418**	**0.0000**	**168.0904**	**168.0904**	**0.0398**	**0.0000**	**169.0841**

Mitigated Construction Off-Site

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0126	0.3490	0.1562	1.8000e-003	0.0620	3.0100e-003	0.0650	0.0179	2.8800e-003	0.0208	0.0000	171.5523	171.5523	7.1000e-004	0.0239	178.6953
Worker	0.0677	0.0464	0.5561	1.5800e-003	0.1923	9.2000e-004	0.1932	0.0511	8.4000e-004	0.0519	0.0000	145.1641	145.1641	4.4000e-003	4.2800e-003	146.5492
Total	**0.0803**	**0.3954**	**0.7123**	**3.3800e-003**	**0.2543**	**3.9300e-003**	**0.2582**	**0.0690**	**3.7200e-003**	**0.0727**	**0.0000**	**316.7163**	**316.7163**	**5.1100e-003**	**0.0282**	**325.2445**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	9.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0192**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.9000e-004	3.5000e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9129	0.9129	3.0000e-005	3.0000e-005	0.9216
Total	**4.3000e-004**	**2.9000e-004**	**3.5000e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9129**	**0.9129**	**3.0000e-005**	**3.0000e-005**	**0.9216**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	9.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0192**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.9000e-004	3.5000e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9129	0.9129	3.0000e-005	3.0000e-005	0.9216
Total	**4.3000e-004**	**2.9000e-004**	**3.5000e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9129**	**0.9129**	**3.0000e-005**	**3.0000e-005**	**0.9216**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2300e-003	0.0488	0.0724	1.2000e-004		2.4400e-003	2.4400e-003		2.4400e-003	2.4400e-003	0.0000	10.2130	10.2130	5.8000e-004	0.0000	10.2274
Total	**0.9272**	**0.0488**	**0.0724**	**1.2000e-004**		**2.4400e-003**	**2.4400e-003**		**2.4400e-003**	**2.4400e-003**	**0.0000**	**10.2130**	**10.2130**	**5.8000e-004**	**0.0000**	**10.2274**

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

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	7.4900e-003	5.1400e-003	0.0615	1.8000e-004	0.0213	1.0000e-004	0.0214	5.6500e-003	9.0000e-005	5.7500e-003	0.0000	16.0668	16.0668	4.9000e-004	4.7000e-004	16.2201
Total	**7.4900e-003**	**5.1400e-003**	**0.0615**	**1.8000e-004**	**0.0213**	**1.0000e-004**	**0.0214**	**5.6500e-003**	**9.0000e-005**	**5.7500e-003**	**0.0000**	**16.0668**	**16.0668**	**4.9000e-004**	**4.7000e-004**	**16.2201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2300e-003	0.0488	0.0724	1.2000e-004		2.4400e-003	2.4400e-003		2.4400e-003	2.4400e-003	0.0000	10.2130	10.2130	5.8000e-004	0.0000	10.2274
Total	**0.9272**	**0.0488**	**0.0724**	**1.2000e-004**		**2.4400e-003**	**2.4400e-003**		**2.4400e-003**	**2.4400e-003**	**0.0000**	**10.2130**	**10.2130**	**5.8000e-004**	**0.0000**	**10.2274**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4900e-003	5.1400e-003	0.0615	1.8000e-004	0.0213	1.0000e-004	0.0214	5.6500e-003	9.0000e-005	5.7500e-003	0.0000	16.0668	16.0668	4.9000e-004	4.7000e-004	16.2201
Total	**7.4900e-003**	**5.1400e-003**	**0.0615**	**1.8000e-004**	**0.0213**	**1.0000e-004**	**0.0214**	**5.6500e-003**	**9.0000e-005**	**5.7500e-003**	**0.0000**	**16.0668**	**16.0668**	**4.9000e-004**	**4.7000e-004**	**16.2201**

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					

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

Mitigated	0.2510	3.5375	3.8650	0.0256	1.7794	0.0410	1.8204	0.4825	0.0391	0.5216	0.0000	2,415.7239	2,415.7239	0.0242	0.2466	2,489.8056
Unmitigated	0.2510	3.5375	3.8650	0.0256	1.7794	0.0410	1.8204	0.4825	0.0391	0.5216	0.0000	2,415.7239	2,415.7239	0.0242	0.2466	2,489.8056

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	816.21	816.21	816.21	4,523,785	4,523,785
Total	816.21	816.21	816.21	4,523,785	4,523,785

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	40.00	7.30	7.30	24.24	0.00	75.76	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Parking Lot	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Refrigerated Warehouse-No Rail	0.551100	0.068900	0.034500	0.034500	0.034300	0.034300	0.055100	0.187300	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Percent of Electricity Use Generated with Renewable 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	684.8843	684.8843	0.0578	7.0100e-003	688.4175
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,739.5372	2,739.5372	0.2312	0.0280	2,753.6701
NaturalGas Mitigated	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	1,062.8073	1,062.8073	0.0204	0.0195	1,069.1231
NaturalGas Unmitigated	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	1,062.8073	1,062.8073	0.0204	0.0195	1,069.1231

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rai	1.99163e+007	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	1,062.8073	1,062.8073	0.0204	0.0195	1,069.1231

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

Total		**0.1074**	**0.9763**	**0.8201**	**5.8600e-003**		**0.0742**	**0.0742**		**0.0742**	**0.0742**	**0.0000**	**1,062.8073**	**1,062.8073**	**0.0204**	**0.0195**	**1,069.1231**

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.99163e+007	0.1074	0.9763	0.8201	5.8600e-003		0.0742	0.0742		0.0742	0.0742	0.0000	1,062.8073	1,062.8073	0.0204	0.0195	1,069.1231
Total		**0.1074**	**0.9763**	**0.8201**	**5.8600e-003**		**0.0742**	**0.0742**		**0.0742**	**0.0742**	**0.0000**	**1,062.8073**	**1,062.8073**	**0.0204**	**0.0195**	**1,069.1231**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

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

Parking Lot	108895	19.3121	1.6300e-003	2.0000e-004	19.4117
Refrigerated Warehouse-No Rail	1.53386e+007	2,720.2252	0.2296	0.0278	2,734.2584
Total		**2,739.5372**	**0.2312**	**0.0280**	**2,753.6701**

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	27223.8	4.8280	4.1000e-004	5.0000e-005	4.8529
Refrigerated Warehouse-No Rail	3.83464e+006	680.0563	0.0574	6.9600e-003	683.5646
Total		**684.8843**	**0.0578**	**7.0100e-003**	**688.4175**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6221	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149
Unmitigated	1.6221	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0920					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5294					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6000e-004	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149
Total	**1.6221**	**7.0000e-005**	**7.1900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0140**	**0.0140**	**4.0000e-005**	**0.0000**	**0.0149**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0920					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5294					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6000e-004	7.0000e-005	7.1900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0140	0.0140	4.0000e-005	0.0000	0.0149
Total	**1.6221**	**7.0000e-005**	**7.1900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0140**	**0.0140**	**4.0000e-005**	**0.0000**	**0.0149**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	116.9190	1.4592	0.0353	163.9195
Unmitigated	233.8379	2.9184	0.0706	327.8389

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	89.0313 / 0	233.8379	2.9184	0.0706	327.8389
Total		**233.8379**	**2.9184**	**0.0706**	**327.8389**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Refrigerated Warehouse-No	44.5156 / 0	116.9190	1.4592	0.0353	163.9195
Total		**116.9190**	**1.4592**	**0.0353**	**163.9195**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	55.0968	3.2561	0.0000	136.5000
Unmitigated	73.4624	4.3415	0.0000	182.0001

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	361.9	73.4624	4.3415	0.0000	182.0001
Total		**73.4624**	**4.3415**	**0.0000**	**182.0001**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	271.425	55.0968	3.2561	0.0000	136.5000
Total		**55.0968**	**3.2561**	**0.0000**	**136.5000**

9.0 Operational Offroad

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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Forklifts	6	8.00	260	89	0.20	Electrical
Other Material Handling Equipment	6	8.00	260	168	0.40	Electrical

UnMitigated/Mitigated

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.03	12	324	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (300 - 600 HP)	3.1900e-003	8.9200e-003	8.1300e-003	2.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.4805	1.4805	2.1000e-004	0.0000	1.4857
Total	**3.1900e-003**	**8.9200e-003**	**8.1300e-003**	**2.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.4805**	**1.4805**	**2.1000e-004**	**0.0000**	**1.4857**

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	110.1000	0.0000	0.0000	110.1000

11.2 Net New Trees

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Annual

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

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	150	110.1000	0.0000	0.0000	110.1000
Total		**110.1000**	**0.0000**	**0.0000**	**110.1000**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

GTS Cold Storage - Apple Valley

Mojave Desert Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	385.00	1000sqft	8.84	385,004.00	0
Other Non-Asphalt Surfaces	87.72	1000sqft	2.01	87,724.00	0
Parking Lot	311.13	1000sqft	7.14	311,129.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Net site size: 17.68 acre

Construction Phase - Construction planned to start in April 2023, end in 2024. Used default durations, except assumed architectural coatings would be applied during the Building Construction phase.

Architectural Coating - Coatings would comply with MDAQMD Rule 1113.

Vehicle Trips - Trip rate from traffic study. Assumed 3- and 4+-axle truck trip lengths would average 40 miles.

Area Coating - Coatings would comply with MDAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by MDAQMD Rule 403.

Energy Mitigation - Approximation of the percent solar would provide based on plans.

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Water Mitigation - Approximation of water reduction percentage based on plans.

Operational Off-Road Equipment - Six forklifts and six material handling equipment planned, all would be electrically-powered

Fleet Mix - Fleet mix from traffic study.

Stationary Sources - Emergency Generators and Fire Pumps - Assume Fire Pump testing would be one hour monthly.

Sequestration -

Area Mitigation -

Waste Mitigation - Approximation of waste reduction percentage based on plans.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintParkingValue	50	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	PhaseEndDate	9/13/2024	7/19/2024
tblConstructionPhase	PhaseStartDate	8/17/2024	4/1/2024
tblFleetMix	HHD	0.02	0.19
tblFleetMix	LDA	0.53	0.55
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.17	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.7960e-003	0.03

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.03
tblFleetMix	MH	5.7520e-003	0.00
tblFleetMix	MHD	7.1140e-003	0.06
tblFleetMix	OBUS	5.2000e-004	0.00
tblFleetMix	SBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.9400e-004	0.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblSequestration	NumberOfNewTrees	0.00	150.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	324.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.03
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CNW_TTP	41.00	75.76
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	59.00	24.24
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3948	34.5556	28.6400	0.0769	19.8049	1.4253	21.0716	10.1417	1.3113	11.3071	0.0000	7,709.2685	7,709.2685	1.9485	0.4372	7,856.7967
2024	26.1673	19.9267	30.7877	0.0833	4.1130	0.7309	4.8439	1.1107	0.6915	1.8022	0.0000	8,339.0375	8,339.0375	0.7169	0.4361	8,486.7006
Maximum	**26.1673**	**34.5556**	**30.7877**	**0.0833**	**19.8049**	**1.4253**	**21.0716**	**10.1417**	**1.3113**	**11.3071**	**0.0000**	**8,339.0375**	**8,339.0375**	**1.9485**	**0.4372**	**8,486.7006**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3948	34.5556	28.6400	0.0769	8.9935	1.4253	10.2603	4.5853	1.3113	5.7507	0.0000	7,709.2685	7,709.2685	1.9485	0.4372	7,856.7967
2024	26.1673	19.9267	30.7877	0.0833	4.1130	0.7309	4.8439	1.1107	0.6915	1.8022	0.0000	8,339.0375	8,339.0375	0.7169	0.4361	8,486.7006
Maximum	**26.1673**	**34.5556**	**30.7877**	**0.0833**	**8.9935**	**1.4253**	**10.2603**	**4.5853**	**1.3113**	**5.7507**	**0.0000**	**8,339.0375**	**8,339.0375**	**1.9485**	**0.4372**	**8,486.7006**

	ROG	NOx	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**	**45.20**	**0.00**	**41.72**	**49.38**	**0.00**	**42.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Energy	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Mobile	1.6234	18.3322	23.9047	0.1459	9.9514	0.2256	10.1770	2.6938	0.2148	2.9086		15,131.9760	15,131.9760	0.1445	1.4850	15,578.1222
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Stationary	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**11.1196**	**23.7271**	**28.5189**	**0.1781**	**9.9514**	**0.6348**	**10.5862**	**2.6938**	**0.6240**	**3.3178**	**0.0000**	**21,559.7297**	**21,559.7297**	**0.2691**	**1.6027**	**22,044.0631**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Energy	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Mobile	1.6234	18.3322	23.9047	0.1459	9.9514	0.2256	10.1770	2.6938	0.2148	2.9086		15,131.9760	15,131.9760	0.1445	1.4850	15,578.1222
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Stationary	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**11.1196**	**23.7271**	**28.5189**	**0.1781**	**9.9514**	**0.6348**	**10.5862**	**2.6938**	**0.6240**	**3.3178**	**0.0000**	**21,559.7297**	**21,559.7297**	**0.2691**	**1.6027**	**22,044.0631**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/3/2023	4/14/2023	5	10	
2	Grading	Grading	4/15/2023	5/26/2023	5	30	
3	Building Construction	Building Construction	5/27/2023	7/19/2024	5	300	
4	Paving	Paving	7/20/2024	8/16/2024	5	20	
5	Architectural Coating	Architectural Coating	4/1/2024	7/19/2024	5	80	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 577,506; Non-Residential Outdoor: 192,502; Striped Parking Area: 23,931

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	128.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Worker	0.0658	0.0360	0.5299	1.3500e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		136.4336	136.4336	3.8800e-003	3.6200e-003	137.6094
Total	**0.0658**	**0.0360**	**0.5299**	**1.3500e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**136.4336**	**136.4336**	**3.8800e-003**	**3.6200e-003**	**137.6094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.8457**	**1.2660**	**10.1117**	**4.5461**	**1.1647**	**5.7108**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Worker	0.0658	0.0360	0.5299	1.3500e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		136.4336	136.4336	3.8800e-003	3.6200e-003	137.6094
Total	**0.0658**	**0.0360**	**0.5299**	**1.3500e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**136.4336**	**136.4336**	**3.8800e-003**	**3.6200e-003**	**137.6094**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Worker	0.0731	0.0400	0.5888	1.5000e-003	0.1643	8.2000e-004	0.1651	0.0436	7.5000e-004	0.0443		151.5929	151.5929	4.3100e-003	4.0200e-003	152.8993
Total	**0.0731**	**0.0400**	**0.5888**	**1.5000e-003**	**0.1643**	**8.2000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**151.5929**	**151.5929**	**4.3100e-003**	**4.0200e-003**	**152.8993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**4.1416**	**1.4245**	**5.5661**	**1.6442**	**1.3105**	**2.9547**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Worker	0.0731	0.0400	0.5888	1.5000e-003	0.1643	8.2000e-004	0.1651	0.0436	7.5000e-004	0.0443		151.5929	151.5929	4.3100e-003	4.0200e-003	152.8993
Total	**0.0731**	**0.0400**	**0.5888**	**1.5000e-003**	**0.1643**	**8.2000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**151.5929**	**151.5929**	**4.3100e-003**	**4.0200e-003**	**152.8993**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1865	4.6116	2.1865	0.0253	0.8682	0.0414	0.9096	0.2500	0.0396	0.2896		2,660.3549	2,660.3549	0.0115	0.3710	2,771.1976
Worker	1.2018	0.6586	9.6856	0.0247	2.7027	0.0134	2.7161	0.7169	0.0124	0.7292		2,493.7037	2,493.7037	0.0710	0.0662	2,515.1931

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Total	**1.3883**	**5.2702**	**11.8721**	**0.0500**	**3.5708**	**0.0548**	**3.6256**	**0.9669**	**0.0520**	**1.0188**		**5,154.0585**	**5,154.0585**	**0.0824**	**0.4372**	**5,286.3907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1865	4.6116	2.1865	0.0253	0.8682	0.0414	0.9096	0.2500	0.0396	0.2896		2,660.3549	2,660.3549	0.0115	0.3710	2,771.1976
Worker	1.2018	0.6586	9.6856	0.0247	2.7027	0.0134	2.7161	0.7169	0.0124	0.7292		2,493.7037	2,493.7037	0.0710	0.0662	2,515.1931
Total	**1.3883**	**5.2702**	**11.8721**	**0.0500**	**3.5708**	**0.0548**	**3.6256**	**0.9669**	**0.0520**	**1.0188**		**5,154.0585**	**5,154.0585**	**0.0824**	**0.4372**	**5,286.3907**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1809	4.5636	2.1179	0.0248	0.8682	0.0415	0.9097	0.2500	0.0397	0.2897		2,605.2103	2,605.2103	0.0110	0.3626	2,713.5429
Worker	1.1117	0.5834	8.9061	0.0239	2.7027	0.0126	2.7153	0.7169	0.0116	0.7285		2,412.6780	2,412.6780	0.0638	0.0612	2,432.5225
Total	**1.2926**	**5.1471**	**11.0241**	**0.0486**	**3.5708**	**0.0541**	**3.6250**	**0.9669**	**0.0513**	**1.0182**		**5,017.8883**	**5,017.8883**	**0.0748**	**0.4239**	**5,146.0654**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1809	4.5636	2.1179	0.0248	0.8682	0.0415	0.9097	0.2500	0.0397	0.2897		2,605.2103	2,605.2103	0.0110	0.3626	2,713.5429
Worker	1.1117	0.5834	8.9061	0.0239	2.7027	0.0126	2.7153	0.7169	0.0116	0.7285		2,412.6780	2,412.6780	0.0638	0.0612	2,432.5225
Total	**1.2926**	**5.1471**	**11.0241**	**0.0486**	**3.5708**	**0.0541**	**3.6250**	**0.9669**	**0.0513**	**1.0182**		**5,017.8883**	**5,017.8883**	**0.0748**	**0.4239**	**5,146.0654**

3.5 Paving - 2024

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9235**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0507	0.0266	0.4061	1.0900e-003	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		110.0005	110.0005	2.9100e-003	2.7900e-003	110.9053
Total	**0.0507**	**0.0266**	**0.4061**	**1.0900e-003**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.3000e-004**	**0.0332**		**110.0005**	**110.0005**	**2.9100e-003**	**2.7900e-003**	**110.9053**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9235**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0507	0.0266	0.4061	1.0900e-003	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		110.0005	110.0005	2.9100e-003	2.7900e-003	110.9053
Total	**0.0507**	**0.0266**	**0.4061**	**1.0900e-003**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.3000e-004**	**0.0332**		**110.0005**	**110.0005**	**2.9100e-003**	**2.7900e-003**	**110.9053**

3.6 Architectural Coating - 2024

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.9994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.1802**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2230	0.1170	1.7866	4.7900e-003	0.5422	2.5400e-003	0.5447	0.1438	2.3300e-003	0.1461		484.0023	484.0023	0.0128	0.0123	487.9832
Total	**0.2230**	**0.1170**	**1.7866**	**4.7900e-003**	**0.5422**	**2.5400e-003**	**0.5447**	**0.1438**	**2.3300e-003**	**0.1461**		**484.0023**	**484.0023**	**0.0128**	**0.0123**	**487.9832**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.9994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**23.1802**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2230	0.1170	1.7866	4.7900e-003	0.5422	2.5400e-003	0.5447	0.1438	2.3300e-003	0.1461		484.0023	484.0023	0.0128	0.0123	487.9832
Total	**0.2230**	**0.1170**	**1.7866**	**4.7900e-003**	**0.5422**	**2.5400e-003**	**0.5447**	**0.1438**	**2.3300e-003**	**0.1461**		**484.0023**	**484.0023**	**0.0128**	**0.0123**	**487.9832**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6234	18.3322	23.9047	0.1459	9.9514	0.2256	10.1770	2.6938	0.2148	2.9086		15,131.9760	15,131.9760	0.1445	1.4850	15,578.1222
Unmitigated	1.6234	18.3322	23.9047	0.1459	9.9514	0.2256	10.1770	2.6938	0.2148	2.9086		15,131.9760	15,131.9760	0.1445	1.4850	15,578.1222

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	816.21	816.21	816.21	4,523,785	4,523,785
Total	816.21	816.21	816.21	4,523,785	4,523,785

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	40.00	7.30	7.30	24.24	0.00	75.76	100	0	0

4.4 Fleet Mix

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Parking Lot	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Refrigerated Warehouse-No Rail	0.551100	0.068900	0.034500	0.034500	0.034300	0.034300	0.055100	0.187300	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
NaturalGas Unmitigated	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Land Use	kBTU/yr	lb/day								lb/day				
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rai	54565.1	0.5885	5.3495	4.4936	0.0321	0.4066	0.4066	0.4066	0.4066	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Total		0.5885	5.3495	4.4936	0.0321	0.4066	0.4066	0.4066	0.4066	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rai	54.5651	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066	6,419.4221	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Total		0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066	6,419.4221	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

6.0 Area Detail

6.1 Mitigation Measures Area

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Unmitigated	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5041					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3800e-003	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Total	**8.8918**	**7.3000e-004**	**0.0799**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1716**	**0.1716**	**4.5000e-004**		**0.1828**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5041					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3800e-003	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Total	**8.8918**	**7.3000e-004**	**0.0799**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1716**	**0.1716**	**4.5000e-004**		**0.1828**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	260	89	0.20	Electrical
Other Material Handling Equipment	6	8.00	260	168	0.40	Electrical

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Other Material Handling	0.0000	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**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.03	12	324	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Summer

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

Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (300 - 600 HP)	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**0.0160**	**0.0446**	**0.0407**	**8.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**		**8.1601**	**8.1601**	**1.1400e-003**		**8.1887**

11.0 Vegetation

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

GTS Cold Storage - Apple Valley

Mojave Desert Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	385.00	1000sqft	8.84	385,004.00	0
Other Non-Asphalt Surfaces	87.72	1000sqft	2.01	87,724.00	0
Parking Lot	311.13	1000sqft	7.14	311,129.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Net site size: 17.68 acre

Construction Phase - Construction planned to start in April 2023, end in 2024. Used default durations, except assumed architectural coatings would be applied during the Building Construction phase.

Architectural Coating - Coatings would comply with MDAQMD Rule 1113.

Vehicle Trips - Trip rate from traffic study. Assumed 3- and 4+-axle truck trip lengths would average 40 miles.

Area Coating - Coatings would comply with MDAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by MDAQMD Rule 403.

Energy Mitigation - Approximation of the percent solar would provide based on plans.

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Water Mitigation - Approximation of water reduction percentage based on plans.

Operational Off-Road Equipment - Six forklifts and six material handling equipment planned, all would be electrically-powered

Fleet Mix - Fleet mix from traffic study.

Stationary Sources - Emergency Generators and Fire Pumps - Assume Fire Pump testing would be one hour monthly.

Sequestration -

Area Mitigation -

Waste Mitigation - Approximation of waste reduction percentage based on plans.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	250
tblAreaMitigation	UseLowVOCPaintParkingValue	50	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	PhaseEndDate	9/13/2024	7/19/2024
tblConstructionPhase	PhaseStartDate	8/17/2024	4/1/2024
tblFleetMix	HHD	0.02	0.19
tblFleetMix	LDA	0.53	0.55
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT2	0.17	0.03
tblFleetMix	LHD1	0.03	0.03
tblFleetMix	LHD2	7.7960e-003	0.03

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.03
tblFleetMix	MH	5.7520e-003	0.00
tblFleetMix	MHD	7.1140e-003	0.06
tblFleetMix	OBUS	5.2000e-004	0.00
tblFleetMix	SBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.9400e-004	0.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperFuelType	Diesel	Electrical
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblSequestration	NumberOfNewTrees	0.00	150.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	324.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.03
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CNW_TTP	41.00	75.76
tblVehicleTrips	CW_TL	9.50	40.00
tblVehicleTrips	CW_TTP	59.00	24.24
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3874	34.5570	28.5235	0.0742	19.8049	1.4253	21.0716	10.1417	1.3113	11.3071	0.0000	7,441.5756	7,441.5756	1.9486	0.4401	7,590.0032
2024	26.0214	20.2367	28.7689	0.0802	4.1130	0.7310	4.8440	1.1107	0.6916	1.8023	0.0000	8,027.6498	8,027.6498	0.7170	0.4392	8,176.2496
Maximum	**26.0214**	**34.5570**	**28.7689**	**0.0802**	**19.8049**	**1.4253**	**21.0716**	**10.1417**	**1.3113**	**11.3071**	**0.0000**	**8,027.6498**	**8,027.6498**	**1.9486**	**0.4401**	**8,176.2496**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3874	34.5570	28.5235	0.0742	8.9935	1.4253	10.2603	4.5853	1.3113	5.7507	0.0000	7,441.5756	7,441.5756	1.9486	0.4401	7,590.0032
2024	26.0214	20.2367	28.7689	0.0802	4.1130	0.7310	4.8440	1.1107	0.6916	1.8023	0.0000	8,027.6498	8,027.6498	0.7170	0.4392	8,176.2496
Maximum	**26.0214**	**34.5570**	**28.7689**	**0.0802**	**8.9935**	**1.4253**	**10.2603**	**4.5853**	**1.3113**	**5.7507**	**0.0000**	**8,027.6498**	**8,027.6498**	**1.9486**	**0.4401**	**8,176.2496**

	ROG	NOx	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**	**45.20**	**0.00**	**41.72**	**49.38**	**0.00**	**42.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Energy	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Mobile	1.3654	19.3696	20.3228	0.1398	9.9514	0.2259	10.1773	2.6938	0.2151	2.9089		14,515.9381	14,515.9381	0.1430	1.4912	14,963.8900
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Stationary	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**10.8616**	**24.7644**	**24.9370**	**0.1719**	**9.9514**	**0.6351**	**10.5865**	**2.6938**	**0.6243**	**3.3181**	**0.0000**	**20,943.6917**	**20,943.6917**	**0.2676**	**1.6089**	**21,429.8309**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Energy	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Mobile	1.3654	19.3696	20.3228	0.1398	9.9514	0.2259	10.1773	2.6938	0.2151	2.9089		14,515.9381	14,515.9381	0.1430	1.4912	14,963.8900
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Stationary	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**10.8616**	**24.7644**	**24.9370**	**0.1719**	**9.9514**	**0.6351**	**10.5865**	**2.6938**	**0.6243**	**3.3181**	**0.0000**	**20,943.6917**	**20,943.6917**	**0.2676**	**1.6089**	**21,429.8309**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/3/2023	4/14/2023	5	10	
2	Grading	Grading	4/15/2023	5/26/2023	5	30	
3	Building Construction	Building Construction	5/27/2023	7/19/2024	5	300	
4	Paving	Paving	7/20/2024	8/16/2024	5	20	
5	Architectural Coating	Architectural Coating	4/1/2024	7/19/2024	5	80	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 577,506; Non-Residential Outdoor: 192,502; Striped Parking Area: 23,931

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	329.00	128.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Worker	0.0591	0.0373	0.4251	1.2000e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		121.3781	121.3781	3.9600e-003	3.7000e-003	122.5784
Total	**0.0591**	**0.0373**	**0.4251**	**1.2000e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**121.3781**	**121.3781**	**3.9600e-003**	**3.7000e-003**	**122.5784**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.8457**	**1.2660**	**10.1117**	**4.5461**	**1.1647**	**5.7108**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Worker	0.0591	0.0373	0.4251	1.2000e-003	0.1479	7.3000e-004	0.1486	0.0392	6.8000e-004	0.0399		121.3781	121.3781	3.9600e-003	3.7000e-003	122.5784
Total	**0.0591**	**0.0373**	**0.4251**	**1.2000e-003**	**0.1479**	**7.3000e-004**	**0.1486**	**0.0392**	**6.8000e-004**	**0.0399**		**121.3781**	**121.3781**	**3.9600e-003**	**3.7000e-003**	**122.5784**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Worker	0.0657	0.0414	0.4724	1.3300e-003	0.1643	8.2000e-004	0.1651	0.0436	7.5000e-004	0.0443		134.8646	134.8646	4.4000e-003	4.1100e-003	136.1983
Total	**0.0657**	**0.0414**	**0.4724**	**1.3300e-003**	**0.1643**	**8.2000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**134.8646**	**134.8646**	**4.4000e-003**	**4.1100e-003**	**136.1983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**4.1416**	**1.4245**	**5.5661**	**1.6442**	**1.3105**	**2.9547**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Worker	0.0657	0.0414	0.4724	1.3300e-003	0.1643	8.2000e-004	0.1651	0.0436	7.5000e-004	0.0443		134.8646	134.8646	4.4000e-003	4.1100e-003	136.1983
Total	**0.0657**	**0.0414**	**0.4724**	**1.3300e-003**	**0.1643**	**8.2000e-004**	**0.1651**	**0.0436**	**7.5000e-004**	**0.0443**		**134.8646**	**134.8646**	**4.4000e-003**	**4.1100e-003**	**136.1983**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1733	4.9005	2.2584	0.0254	0.8682	0.0415	0.9097	0.2500	0.0397	0.2898		2,667.8436	2,667.8436	0.0109	0.3726	2,779.1356
Worker	1.0799	0.6815	7.7702	0.0220	2.7027	0.0134	2.7161	0.7169	0.0124	0.7292		2,218.5220	2,218.5220	0.0723	0.0676	2,240.4615

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Total	**1.2532**	**5.5821**	**10.0286**	**0.0473**	**3.5708**	**0.0550**	**3.6258**	**0.9669**	**0.0521**	**1.0190**		**4,886.3656**	**4,886.3656**	**0.0832**	**0.4401**	**5,019.5971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1733	4.9005	2.2584	0.0254	0.8682	0.0415	0.9097	0.2500	0.0397	0.2898		2,667.8436	2,667.8436	0.0109	0.3726	2,779.1356
Worker	1.0799	0.6815	7.7702	0.0220	2.7027	0.0134	2.7161	0.7169	0.0124	0.7292		2,218.5220	2,218.5220	0.0723	0.0676	2,240.4615
Total	**1.2532**	**5.5821**	**10.0286**	**0.0473**	**3.5708**	**0.0550**	**3.6258**	**0.9669**	**0.0521**	**1.0190**		**4,886.3656**	**4,886.3656**	**0.0832**	**0.4401**	**5,019.5971**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1678	4.8495	2.1902	0.0248	0.8682	0.0416	0.9098	0.2500	0.0398	0.2898		2,612.6133	2,612.6133	0.0104	0.3641	2,721.3797
Worker	1.0010	0.6036	7.1645	0.0212	2.7027	0.0126	2.7153	0.7169	0.0116	0.7285		2,147.1535	2,147.1535	0.0653	0.0625	2,167.4170
Total	**1.1688**	**5.4530**	**9.3547**	**0.0461**	**3.5708**	**0.0543**	**3.6251**	**0.9669**	**0.0515**	**1.0184**		**4,759.7669**	**4,759.7669**	**0.0757**	**0.4266**	**4,888.7967**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1678	4.8495	2.1902	0.0248	0.8682	0.0416	0.9098	0.2500	0.0398	0.2898		2,612.6133	2,612.6133	0.0104	0.3641	2,721.3797
Worker	1.0010	0.6036	7.1645	0.0212	2.7027	0.0126	2.7153	0.7169	0.0116	0.7285		2,147.1535	2,147.1535	0.0653	0.0625	2,167.4170
Total	**1.1688**	**5.4530**	**9.3547**	**0.0461**	**3.5708**	**0.0543**	**3.6251**	**0.9669**	**0.0515**	**1.0184**		**4,759.7669**	**4,759.7669**	**0.0757**	**0.4266**	**4,888.7967**

3.5 Paving - 2024

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9235**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0456	0.0275	0.3267	9.7000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		97.8945	97.8945	2.9800e-003	2.8500e-003	98.8184
Total	**0.0456**	**0.0275**	**0.3267**	**9.7000e-004**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.3000e-004**	**0.0332**		**97.8945**	**97.8945**	**2.9800e-003**	**2.8500e-003**	**98.8184**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9235**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0456	0.0275	0.3267	9.7000e-004	0.1232	5.8000e-004	0.1238	0.0327	5.3000e-004	0.0332		97.8945	97.8945	2.9800e-003	2.8500e-003	98.8184
Total	**0.0456**	**0.0275**	**0.3267**	**9.7000e-004**	**0.1232**	**5.8000e-004**	**0.1238**	**0.0327**	**5.3000e-004**	**0.0332**		**97.8945**	**97.8945**	**2.9800e-003**	**2.8500e-003**	**98.8184**

3.6 Architectural Coating - 2024

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.9994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.1802**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2008	0.1211	1.4373	4.2600e-003	0.5422	2.5400e-003	0.5447	0.1438	2.3300e-003	0.1461		430.7360	430.7360	0.0131	0.0125	434.8010
Total	**0.2008**	**0.1211**	**1.4373**	**4.2600e-003**	**0.5422**	**2.5400e-003**	**0.5447**	**0.1438**	**2.3300e-003**	**0.1461**		**430.7360**	**430.7360**	**0.0131**	**0.0125**	**434.8010**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	22.9994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**23.1802**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2008	0.1211	1.4373	4.2600e-003	0.5422	2.5400e-003	0.5447	0.1438	2.3300e-003	0.1461		430.7360	430.7360	0.0131	0.0125	434.8010
Total	**0.2008**	**0.1211**	**1.4373**	**4.2600e-003**	**0.5422**	**2.5400e-003**	**0.5447**	**0.1438**	**2.3300e-003**	**0.1461**		**430.7360**	**430.7360**	**0.0131**	**0.0125**	**434.8010**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3654	19.3696	20.3228	0.1398	9.9514	0.2259	10.1773	2.6938	0.2151	2.9089		14,515.9381	14,515.9381	0.1430	1.4912	14,963.8900
Unmitigated	1.3654	19.3696	20.3228	0.1398	9.9514	0.2259	10.1773	2.6938	0.2151	2.9089		14,515.9381	14,515.9381	0.1430	1.4912	14,963.8900

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	816.21	816.21	816.21	4,523,785	4,523,785
Total	816.21	816.21	816.21	4,523,785	4,523,785

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No Rail	40.00	7.30	7.30	24.24	0.00	75.76	100	0	0

4.4 Fleet Mix

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Parking Lot	0.531780	0.056022	0.172399	0.135630	0.029743	0.007796	0.007114	0.023242	0.000520	0.000194	0.028649	0.001160	0.005752
Refrigerated Warehouse-No Rail	0.551100	0.068900	0.034500	0.034500	0.034300	0.034300	0.055100	0.187300	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
NaturalGas Unmitigated	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066		6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Land Use	kBTU/yr	lb/day								lb/day				
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rai	54565.1	0.5885	5.3495	4.4936	0.0321	0.4066	0.4066	0.4066	0.4066	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Total		0.5885	5.3495	4.4936	0.0321	0.4066	0.4066	0.4066	0.4066	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rai	54.5651	0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066	6,419.4221	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695
Total		0.5885	5.3495	4.4936	0.0321		0.4066	0.4066		0.4066	0.4066	6,419.4221	6,419.4221	6,419.4221	0.1230	0.1177	6,457.5695

6.0 Area Detail

6.1 Mitigation Measures Area

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Unmitigated	8.8918	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5041					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3800e-003	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Total	**8.8918**	**7.3000e-004**	**0.0799**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1716**	**0.1716**	**4.5000e-004**		**0.1828**

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5041					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3800e-003	7.3000e-004	0.0799	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1716	0.1716	4.5000e-004		0.1828
Total	**8.8918**	**7.3000e-004**	**0.0799**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**		**0.1716**	**0.1716**	**4.5000e-004**		**0.1828**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	260	89	0.20	Electrical
Other Material Handling Equipment	6	8.00	260	168	0.40	Electrical

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Other Material Handling	0.0000	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**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	0.03	12	324	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

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

GTS Cold Storage - Apple Valley - Mojave Desert Air Basin, Winter

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

Equipment Type	lb/day									lb/day					
Fire Pump - Diesel (300 - 600 HP)	0.0160	0.0446	0.0407	8.0000e-005		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		8.1601	8.1601	1.1400e-003		8.1887
Total	**0.0160**	**0.0446**	**0.0407**	**8.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.3500e-003**	**2.3500e-003**		**8.1601**	**8.1601**	**1.1400e-003**		**8.1887**

11.0 Vegetation

ATTACHMENT C

FUEL USAGE WORKSHEET

Fuel Consumption Worksheet

Annual VMT from CalEEMod modeling	Gasoline-Fueled Percentage	Diesel-Fueled Percentage	Average Gasoline mpg	Gasoline Consumption (gallons/yr)	Average Diesel mpg	Diesel Consumption (gallons/yr)
4,523,785	62.8%	37.1%	22.9	124,146	8	209,934

Fleet Mix from CalEEMod modeling

Land Use	ADT	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial	817	55.11%	6.89%	3.45%	3.45%	3.43%	3.43%	5.51%	18.73%	0.00%	0.00%	0.00%	0.00%	0.00%

Vehicle Percentages by fuel type

Gasoline-powered:	98%	95%	75%	50%	50%	10%	5%	5%	0%	0%	100%	10%	50%
Diesel-powered:	2%	5%	25%	50%	50%	90%	95%	95%	100%	100%	0%	90%	50%

truck % = 64.15%

ATTACHMENT B

FIGURES

Figure 1: Regional and Project Location

Figure 2: Conceptual Site Plan

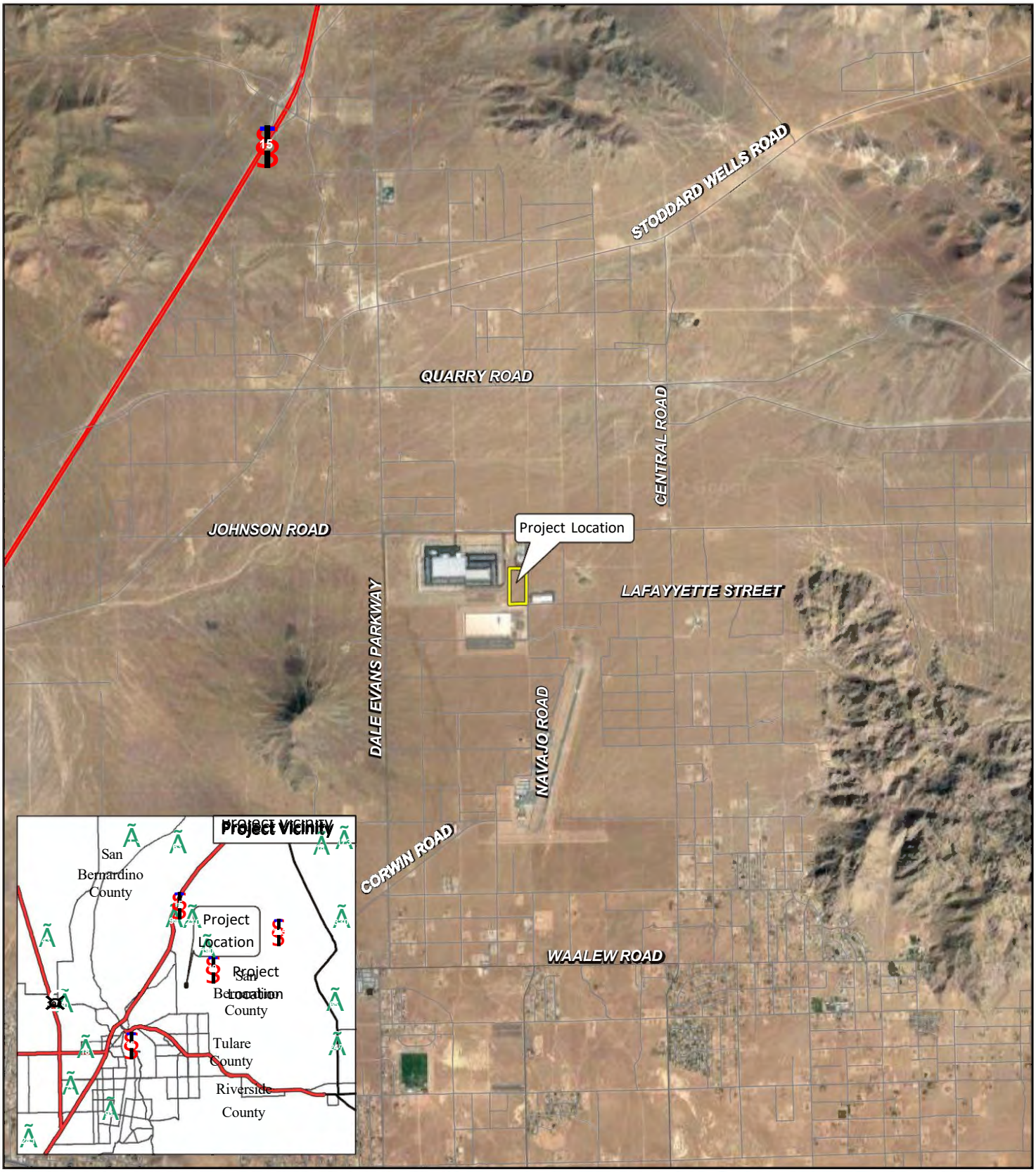

FIGURE 1

SOURCE: ESRI Streetmap, 2021; Google Earth, 2018.

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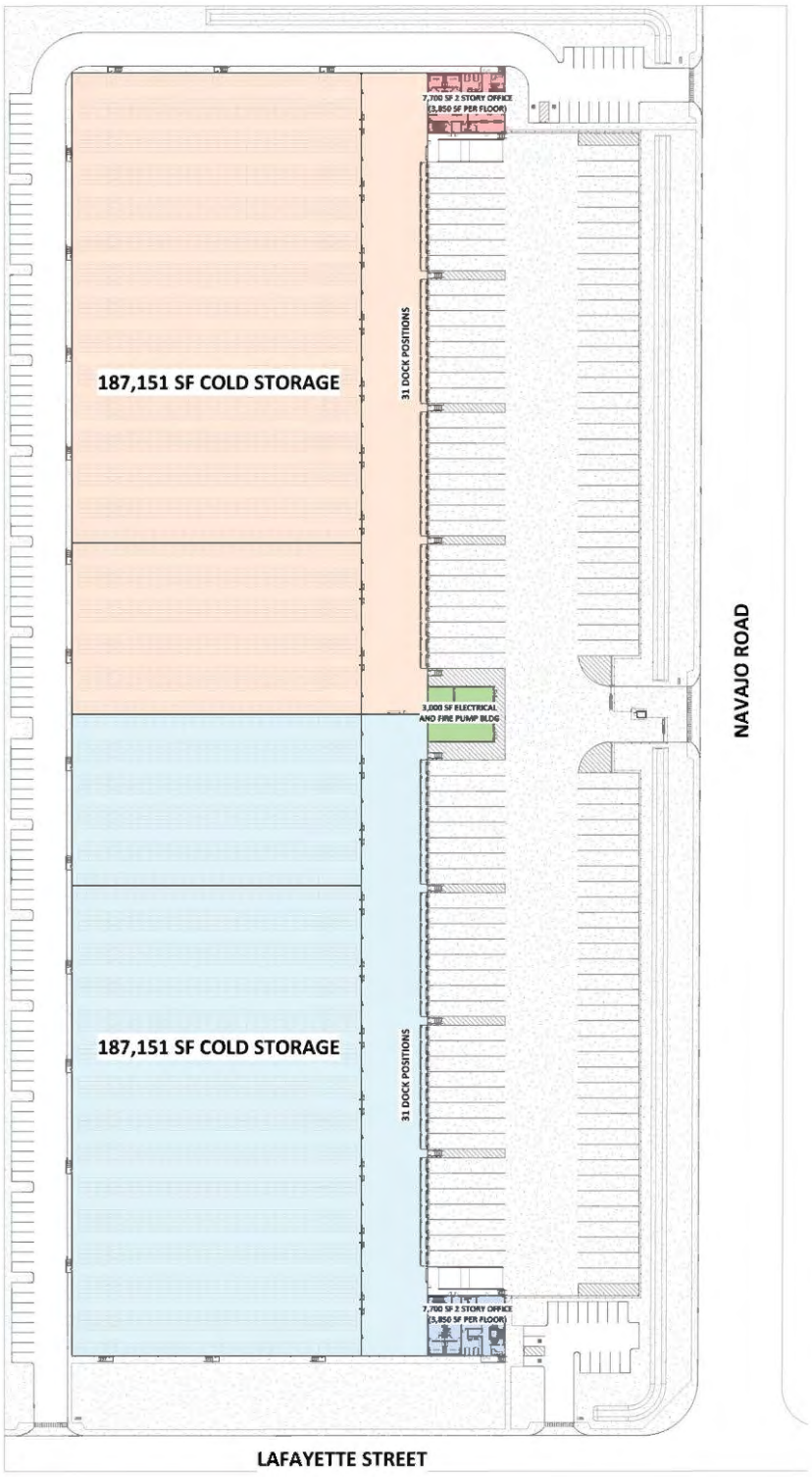
GTA Cold Storage Project

Regional and Project Location



LSA

FIGURE 2

N

NOT TO SCALE

SOURCE: Fisher Construction Group

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GTA Cold Storage Project

Conceptual Site Plan

ATTACHMENT C

CALEEMOD OUTPUT

GTS Cold Storage (GTS2201) Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	GTS Cold Storage (GTS2201)
Construction Start Date	7/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.595470004398976, -117.19044588924005
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	385	1000sqft	8.84	385,004	87,720	0.00	—	—

Parking Lot	311	1000sqft	7.14	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan
Refrigerants	R-1	Use Alternative Refrigerants Instead of High-GWP Refrigerants

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.5	29.2	30.2	0.06	1.24	7.89	9.14	1.14	3.99	5.14	—	7,185	7,185	0.28	0.37	12.9	7,310
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.4	13.1	24.2	0.04	0.41	3.08	3.46	0.38	0.74	1.10	—	6,875	6,875	0.15	0.37	0.33	6,990
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.80	5.82	8.79	0.02	0.21	1.15	1.36	0.19	0.37	0.56	—	2,314	2,314	0.06	0.11	1.64	2,349
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.06	1.06	1.60	< 0.005	0.04	0.21	0.25	0.04	0.07	0.10	—	383	383	0.01	0.02	0.27	389

Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	137	548	137	—	—	82.0	—	—	65.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	137	548	137	—	—	82.0	—	—	65.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.23	29.2	30.2	0.06	1.24	7.89	9.14	1.14	3.99	5.14	—	6,885	6,885	0.28	0.37	12.8	6,911
2027	25.5	12.9	28.7	0.04	0.38	3.08	3.46	0.36	0.74	1.10	—	7,185	7,185	0.14	0.37	12.9	7,310
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.83	12.7	22.1	0.04	0.41	2.65	3.06	0.38	0.64	1.02	—	6,417	6,417	0.13	0.37	0.33	6,531
2027	25.4	13.1	24.2	0.04	0.38	3.08	3.46	0.36	0.74	1.10	—	6,875	6,875	0.15	0.37	0.33	6,990
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.77	5.82	8.79	0.02	0.21	1.15	1.36	0.19	0.37	0.56	—	2,314	2,314	0.06	0.11	1.56	2,349
2027	5.80	4.25	7.93	0.01	0.13	0.89	1.02	0.12	0.22	0.34	—	2,129	2,129	0.05	0.11	1.64	2,165
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.14	1.06	1.60	< 0.005	0.04	0.21	0.25	0.04	0.07	0.10	—	383	383	0.01	0.02	0.26	389

2027	1.06	0.77	1.45	< 0.005	0.02	0.16	0.19	0.02	0.04	0.06	—	352	352	0.01	0.02	0.27	358

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.23	29.2	30.2	0.06	1.24	7.89	9.14	1.14	3.99	5.14	—	6,885	6,885	0.28	0.37	12.8	6,911
2027	25.5	12.9	28.7	0.04	0.38	3.08	3.46	0.36	0.74	1.10	—	7,185	7,185	0.14	0.37	12.9	7,310
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.83	12.7	22.1	0.04	0.41	2.65	3.06	0.38	0.64	1.02	—	6,417	6,417	0.13	0.37	0.33	6,531
2027	25.4	13.1	24.2	0.04	0.38	3.08	3.46	0.36	0.74	1.10	—	6,875	6,875	0.15	0.37	0.33	6,990
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.77	5.82	8.79	0.02	0.21	1.15	1.36	0.19	0.37	0.56	—	2,314	2,314	0.06	0.11	1.56	2,349
2027	5.80	4.25	7.93	0.01	0.13	0.89	1.02	0.12	0.22	0.34	—	2,129	2,129	0.05	0.11	1.64	2,165
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.14	1.06	1.60	< 0.005	0.04	0.21	0.25	0.04	0.07	0.10	—	383	383	0.01	0.02	0.26	389
2027	1.06	0.77	1.45	< 0.005	0.02	0.16	0.19	0.02	0.04	0.06	—	352	352	0.01	0.02	0.27	358

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.7	25.2	64.1	0.19	0.82	8.66	9.48	0.78	2.23	3.00	366	34,413	34,779	38.4	1.95	10,304	46,624

Mit.	14.7	25.2	64.1	0.19	0.82	8.66	9.48	0.78	2.23	3.00	232	24,521	24,753	24.1	1.67	46.0	25,899
% Reduced	—	—	—	—	—	—	—	—	—	—	37%	29%	29%	37%	14%	100%	44%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.7	25.7	40.7	0.18	0.79	8.66	9.45	0.75	2.23	2.98	366	33,694	34,059	38.4	1.96	10,262	45,865
Mit.	11.7	25.7	40.7	0.18	0.79	8.66	9.45	0.75	2.23	2.98	232	23,801	24,033	24.1	1.68	3.74	25,140
% Reduced	—	—	—	—	—	—	—	—	—	—	37%	29%	29%	37%	14%	100%	45%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.8	22.7	45.0	0.17	0.70	8.59	9.29	0.66	2.21	2.87	366	33,011	33,377	38.4	1.96	10,279	45,198
Mit.	12.8	22.7	45.0	0.17	0.70	8.59	9.29	0.66	2.21	2.87	232	23,119	23,351	24.1	1.67	21.4	24,474
% Reduced	—	—	—	—	—	—	—	—	—	—	37%	30%	30%	37%	14%	100%	46%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.34	4.14	8.21	0.03	0.13	1.57	1.70	0.12	0.40	0.52	60.5	5,465	5,526	6.35	0.32	1,702	7,483
Mit.	2.34	4.14	8.21	0.03	0.13	1.57	1.70	0.12	0.40	0.52	38.3	3,828	3,866	3.99	0.28	3.54	4,052
% Reduced	—	—	—	—	—	—	—	—	—	—	37%	30%	30%	37%	14%	100%	46%
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Yes
Mit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Yes

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Area	11.5	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	15,934	15,934	1.07	0.10	—	15,991
Water	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Waste	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Off-Road	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Stationary	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	14.7	25.2	64.1	0.19	0.82	8.66	9.48	0.78	2.23	3.00	366	34,413	34,779	38.4	1.95	10,304	46,624
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Area	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	15,934	15,934	1.07	0.10	—	15,991
Water	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Waste	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Off-Road	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Stationary	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	11.7	25.7	40.7	0.18	0.79	8.66	9.45	0.75	2.23	2.98	366	33,694	34,059	38.4	1.96	10,262	45,865
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.72	12.0	20.3	0.14	0.20	8.59	8.80	0.19	2.21	2.40	—	14,141	14,141	0.16	1.42	18.7	14,586
Area	10.1	0.07	8.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.0	34.0	< 0.005	< 0.005	—	34.1

Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	15,934	15,934	1.07	0.10	—	15,991
Water	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Waste	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Off-Road	0.78	7.86	14.1	0.02	0.27	—	0.27	0.25	—	0.25	—	2,134	2,134	0.09	0.02	—	2,141
Stationary	0.02	0.05	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.94	8.94	< 0.005	< 0.005	0.00	8.97
Total	12.8	22.7	45.0	0.17	0.70	8.59	9.29	0.66	2.21	2.87	366	33,011	33,377	38.4	1.96	10,279	45,198
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415
Area	1.85	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64
Energy	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	2,638	2,638	0.18	0.02	—	2,648
Water	—	—	—	—	—	—	—	—	—	—	28.2	126	154	2.90	0.07	—	247
Waste	—	—	—	—	—	—	—	—	—	—	32.3	0.00	32.3	3.23	0.00	—	113
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,699	1,699
Off-Road	0.14	1.43	2.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	353	353	0.01	< 0.005	—	355
Stationary	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49
Total	2.34	4.14	8.21	0.03	0.13	1.57	1.70	0.12	0.40	0.52	60.5	5,465	5,526	6.35	0.32	1,702	7,483

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Area	11.5	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	6,421	6,421	0.48	0.03	—	6,443

Water	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Waste	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Off-Road	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Stationary	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	14.7	25.2	64.1	0.19	0.82	8.66	9.48	0.78	2.23	3.00	232	24,521	24,753	24.1	1.67	46.0	25,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Area	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	6,421	6,421	0.48	0.03	—	6,443
Water	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Waste	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Off-Road	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Stationary	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	11.7	25.7	40.7	0.18	0.79	8.66	9.45	0.75	2.23	2.98	232	23,801	24,033	24.1	1.68	3.74	25,140
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.72	12.0	20.3	0.14	0.20	8.59	8.80	0.19	2.21	2.40	—	14,141	14,141	0.16	1.42	18.7	14,586
Area	10.1	0.07	8.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.0	34.0	< 0.005	< 0.005	—	34.1
Energy	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	6,421	6,421	0.48	0.03	—	6,443
Water	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Waste	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Off-Road	0.78	7.86	14.1	0.02	0.27	—	0.27	0.25	—	0.25	—	2,134	2,134	0.09	0.02	—	2,141
Stationary	0.02	0.05	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.94	8.94	< 0.005	< 0.005	0.00	8.97

Total	12.8	22.7	45.0	0.17	0.70	8.59	9.29	0.66	2.21	2.87	232	23,119	23,351	24.1	1.67	21.4	24,474
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415
Area	1.85	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64
Energy	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,063	1,063	0.08	< 0.005	—	1,067
Water	—	—	—	—	—	—	—	—	—	—	14.1	62.8	77.0	1.45	0.03	—	124
Waste	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Off-Road	0.14	1.43	2.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	353	353	0.01	< 0.005	—	355
Stationary	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49
Total	2.34	4.14	8.21	0.03	0.13	1.57	1.70	0.12	0.40	0.52	38.3	3,828	3,866	3.99	0.28	3.54	4,052

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movemen	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movemen	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movemen	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.35	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	250	250	0.01	0.01	0.85	254
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.25	6.25	< 0.005	< 0.005	0.01	6.33

Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.05
Vendor	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
Hauling	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

3.2. Site Preparation (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movemen	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movemen	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movemen	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.35	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	250	250	0.01	0.01	0.85	254
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.25	6.25	< 0.005	< 0.005	0.01	6.33
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.05
Vendor	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
Hauling	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

3.3. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movemen	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.17	1.49	1.51	< 0.005	0.06	—	0.06	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363
Dust From Material Movemen	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.03	0.27	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movemen	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	286	286	0.01	0.01	0.97	290
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.3	14.3	< 0.005	< 0.005	0.02	14.5
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.36	2.36	< 0.005	< 0.005	< 0.005	2.40
Vendor	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
Hauling	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

3.4. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621

Dust From Material Movemen	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.17	1.49	1.51	< 0.005	0.06	—	0.06	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363
Dust From Material Movemen	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.03	0.27	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movemen	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	286	286	0.01	0.01	0.97	290
Vendor	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
Hauling	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.3	14.3	< 0.005	< 0.005	0.02	14.5
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.36	2.36	< 0.005	< 0.005	< 0.005	2.40
Vendor	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
Hauling	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

3.5. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.30	2.72	3.58	0.01	0.10	—	0.10	0.10	—	0.10	—	661	661	0.03	0.01	—	664
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.05	0.50	0.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	110	110	< 0.005	< 0.005	—	110
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.77	0.71	12.5	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,312	2,312	0.09	0.08	7.83	2,346
Vendor	0.08	1.97	0.83	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,971	1,971	< 0.005	0.27	4.97	2,056
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.78	8.31	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,047	2,047	0.03	0.08	0.20	2,072
Vendor	0.07	2.08	0.86	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,973	1,973	< 0.005	0.27	0.13	2,054
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.23	2.58	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	582	582	0.01	0.02	0.93	589
Vendor	0.02	0.57	0.23	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	544	544	< 0.005	0.07	0.59	567
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.47	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	96.3	96.3	< 0.005	< 0.005	0.15	97.6
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.10	93.8

Hauling	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

3.6. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.30	2.72	3.58	0.01	0.10	—	0.10	0.10	—	0.10	—	661	661	0.03	0.01	—	664
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.05	0.50	0.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	110	110	< 0.005	< 0.005	—	110
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.77	0.71	12.5	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,312	2,312	0.09	0.08	7.83	2,346
Vendor	0.08	1.97	0.83	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,971	1,971	< 0.005	0.27	4.97	2,056
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.78	8.31	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,047	2,047	0.03	0.08	0.20	2,072
Vendor	0.07	2.08	0.86	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,973	1,973	< 0.005	0.27	0.13	2,054
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.23	2.58	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	582	582	0.01	0.02	0.93	589
Vendor	0.02	0.57	0.23	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	544	544	< 0.005	0.07	0.59	567
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.47	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	96.3	96.3	< 0.005	< 0.005	0.15	97.6
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.10	93.8
Hauling	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

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.31	2.81	3.87	0.01	0.10	—	0.10	0.09	—	0.09	—	718	718	0.03	0.01	—	720
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.06	0.51	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	119	119	< 0.005	< 0.005	—	119
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.73	0.64	11.5	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,272	2,272	0.02	0.08	7.07	2,303
Vendor	0.06	1.90	0.79	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,928	1,928	< 0.005	0.25	4.44	2,008
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.66	0.71	7.74	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,012	2,012	0.03	0.08	0.18	2,037
Vendor	0.05	2.01	0.82	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,930	1,930	< 0.005	0.26	0.12	2,006
Hauling	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.23	2.59	0.00	0.00	0.63	0.63	0.00	0.15	0.15	—	620	620	0.01	0.02	0.91	629
Vendor	0.02	0.60	0.24	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	577	577	< 0.005	0.08	0.57	601
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.47	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	103	103	< 0.005	< 0.005	0.15	104
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.6	95.6	< 0.005	0.01	0.10	99.5
Hauling	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

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.31	2.81	3.87	0.01	0.10	—	0.10	0.09	—	0.09	—	718	718	0.03	0.01	—	720

Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.06	0.51	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	119	119	< 0.005	< 0.005	—	119
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.73	0.64	11.5	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,272	2,272	0.02	0.08	7.07	2,303
Vendor	0.06	1.90	0.79	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,928	1,928	< 0.005	0.25	4.44	2,008
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.66	0.71	7.74	0.00	0.00	2.11	2.11	0.00	0.50	0.50	—	2,012	2,012	0.03	0.08	0.18	2,037
Vendor	0.05	2.01	0.82	0.02	0.03	0.54	0.57	0.03	0.15	0.18	—	1,930	1,930	< 0.005	0.26	0.12	2,006
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.23	2.59	0.00	0.00	0.63	0.63	0.00	0.15	0.15	—	620	620	0.01	0.02	0.91	629
Vendor	0.02	0.60	0.24	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	577	577	< 0.005	0.08	0.57	601
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.47	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	103	103	< 0.005	< 0.005	0.15	104
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.6	95.6	< 0.005	0.01	0.10	99.5
Hauling	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

3.9. Paving (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	1.07	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	< 0.005	0.01	0.66	214
Vendor	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

Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.02	10.7
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.77
Vendor	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
Hauling	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

3.10. Paving (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipmen	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	1.07	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	211	211	< 0.005	0.01	0.66	214
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.02	10.7
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.77
Vendor	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
Hauling	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

3.11. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.02	0.18	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.3	29.3	< 0.005	< 0.005	—	29.4
Architectural Coatings	5.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipmen	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.84	4.84	< 0.005	< 0.005	—	4.86
Architectural Coatings	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	2.31	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	454	454	< 0.005	0.02	1.41	461
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.14	1.55	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	402	402	0.01	0.02	0.04	407
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	90.8	90.8	< 0.005	< 0.005	0.13	92.0
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	0.02	15.2
Vendor	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
Hauling	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

3.12. Architectural Coating (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	0.02	0.18	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.3	29.3	< 0.005	< 0.005	—	29.4
Architectural Coatings	5.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipmen	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.84	4.84	< 0.005	< 0.005	—	4.86

Architect Coatings	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	2.31	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	454	454	< 0.005	0.02	1.41	461
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.14	1.55	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	402	402	0.01	0.02	0.04	407
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	90.8	90.8	< 0.005	< 0.005	0.13	92.0
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	0.02	15.2
Vendor	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
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Parking Lot	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
Total	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Parking Lot	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
Total	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415
Parking Lot	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
Total	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Parking Lot	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
Total	1.89	11.2	25.2	0.14	0.20	8.66	8.86	0.19	2.23	2.42	—	14,647	14,647	0.15	1.40	43.4	15,112
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Parking Lot	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
Total	1.70	11.9	18.6	0.13	0.20	8.66	8.86	0.20	2.23	2.42	—	13,996	13,996	0.15	1.41	1.13	14,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415
Parking Lot	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
Total	0.31	2.18	3.70	0.02	0.04	1.57	1.61	0.04	0.40	0.44	—	2,341	2,341	0.03	0.23	3.10	2,415

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12,286	12,286	0.76	0.09	—	12,333
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	397	397	0.02	< 0.005	—	399
Total	—	—	—	—	—	—	—	—	—	—	—	12,684	12,684	0.79	0.10	—	12,732
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12,286	12,286	0.76	0.09	—	12,333
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	397	397	0.02	< 0.005	—	399
Total	—	—	—	—	—	—	—	—	—	—	—	12,684	12,684	0.79	0.10	—	12,732
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2,034	2,034	0.13	0.02	—	2,042
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	65.8	65.8	< 0.005	< 0.005	—	66.0

Total	—	—	—	—	—	—	—	—	—	—	—	2,100	2,100	0.13	0.02	—	2,108

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3,072	3,072	0.19	0.02	—	3,083
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Total	—	—	—	—	—	—	—	—	—	—	—	3,171	3,171	0.20	0.02	—	3,183
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3,072	3,072	0.19	0.02	—	3,083
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.7
Total	—	—	—	—	—	—	—	—	—	—	—	3,171	3,171	0.20	0.02	—	3,183
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	509	509	0.03	< 0.005	—	510
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5

Total	—	—	—	—	—	—	—	—	—	—	—	525	525	0.03	< 0.005	—	527

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Parking Lot	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
Total	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Parking Lot	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
Total	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	538	538	0.05	< 0.005	—	540
Parking Lot	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

Total	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	538	538	0.05	< 0.005	—	540

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Parking Lot	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
Total	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Parking Lot	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
Total	0.15	2.72	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,251	3,251	0.29	0.01	—	3,260
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	538	538	0.05	< 0.005	—	540
Parking Lot	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

Total	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	538	538	0.05	< 0.005	—	540

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.75	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Total	11.5	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.25	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64
Total	1.85	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.75	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Total	11.5	0.14	16.7	< 0.005	0.03	—	0.03	0.02	—	0.02	—	68.9	68.9	< 0.005	< 0.005	—	69.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	8.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.25	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64
Total	1.85	0.01	1.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.62	5.62	< 0.005	< 0.005	—	5.64

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	171	759	930	17.5	0.42	—	1,494
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	28.2	126	154	2.90	0.07	—	247
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	28.2	126	154	2.90	0.07	—	247

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigera Warehous Rail	— -No	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	85.3	380	465	8.77	0.21	—	747
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigera ted Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	14.1	62.8	77.0	1.45	0.03	—	124
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	14.1	62.8	77.0	1.45	0.03	—	124

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigera ted Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	195	0.00	195	19.5	0.00	—	682
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	32.3	0.00	32.3	3.23	0.00	—	113
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	32.3	0.00	32.3	3.23	0.00	—	113

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,260	10,260
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,699	1,699
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,699	1,699

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62	2.62
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.40	3.74	6.19	0.01	0.16	—	0.16	0.15	—	0.15	—	915	915	0.04	0.01	—	918
Other Material Handling Equipmen	0.69	7.29	13.6	0.02	0.22	—	0.22	0.20	—	0.20	—	2,081	2,081	0.08	0.02	—	2,088
Total	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.40	3.74	6.19	0.01	0.16	—	0.16	0.15	—	0.15	—	915	915	0.04	0.01	—	918

Other Material Handling Equipmen	0.69	7.29	13.6	0.02	0.22	—	0.22	0.20	—	0.20	—	2,081	2,081	0.08	0.02	—	2,088
Total	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.05	0.49	0.80	< 0.005	0.02	—	0.02	0.02	—	0.02	—	108	108	< 0.005	< 0.005	—	108
Other Material Handling Equipmen	0.09	0.95	1.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Total	0.14	1.43	2.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	353	353	0.01	< 0.005	—	355

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.40	3.74	6.19	0.01	0.16	—	0.16	0.15	—	0.15	—	915	915	0.04	0.01	—	918
Other Material Handling Equipmen	0.69	7.29	13.6	0.02	0.22	—	0.22	0.20	—	0.20	—	2,081	2,081	0.08	0.02	—	2,088
Total	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.40	3.74	6.19	0.01	0.16	—	0.16	0.15	—	0.15	—	915	915	0.04	0.01	—	918
Other Material Handling Equipmen	0.69	7.29	13.6	0.02	0.22	—	0.22	0.20	—	0.20	—	2,081	2,081	0.08	0.02	—	2,088

Total	1.09	11.0	19.8	0.03	0.38	—	0.38	0.35	—	0.35	—	2,996	2,996	0.12	0.02	—	3,006
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.05	0.49	0.80	< 0.005	0.02	—	0.02	0.02	—	0.02	—	108	108	< 0.005	< 0.005	—	108
Other Material Handling Equipmen	0.09	0.95	1.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	245	245	0.01	< 0.005	—	246
Total	0.14	1.43	2.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	353	353	0.01	< 0.005	—	355

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Total	0.02	0.04	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	8.16	8.16	< 0.005	< 0.005	0.00	8.19
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.48	1.48	< 0.005	< 0.005	0.00	1.49

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	7/2/2026	7/15/2026	5.00	10.0	—
Grading	Grading	7/16/2026	8/12/2026	5.00	20.0	—
Building Construction	Building Construction	8/13/2026	6/2/2027	5.00	210	—
Paving	Paving	6/4/2027	7/1/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	2/11/2027	6/2/2027	5.00	80.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37

Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	162	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	32.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	162	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	32.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	577,506	192,502	18,668

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	60.0	0.00	—
Paving	0.00	0.00	0.00	0.00	7.14

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	7.14	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	797	797	797	290,904	11,638	11,638	11,638	4,247,751
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	797	797	797	290,904	11,638	11,638	11,638	4,247,751
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	577,506	192,502	18,668

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	8,429,832	532	0.0330	0.0040	10,142,635
Parking Lot	272,550	532	0.0330	0.0040	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	2,107,458	532	0.0330	0.0040	10,142,635
Parking Lot	68,137	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	89,032,175	1,941,992
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Refrigerated Warehouse-No Rail	44,516,088	970,996
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	362	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	271	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	CO2	1.00	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Other Material Handling Equipment	Diesel	Average	6.00	8.00	93.0	0.40

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Other Material Handling Equipment	Diesel	Average	6.00	8.00	93.0	0.40

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	0.03	12.0	324	0.73

5.16.2. Process Boilers

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

8. User Changes to Default Data

Screen	Justification
Land Use	Changes made to match project plans.
Construction: Construction Phases	No demolition needed, construction to start in Mid-summer of 2026, last for 11 to 13 months. Used default durations, except assumed architectural coatings would be applied during the Building Construction phase.

Operations: Vehicle Data	Trip rate from traffic study. Assumed 3- and 4+-axle truck trip lengths would average 40 miles, other vehicles would use the default trip lengths. Assumed 20 of the 4+-axle trucks will be zero-emission
Operations: Fleet Mix	Warehouse fleet percentages from traffic study adjusted to account for 20 of the 4+-axle trucks being zero-emission

ATTACHMENT D

FUEL USAGE WORKSHEETS

Fuel Consumption Worksheet

Annual VMT from CalEEMod modeling	Gasoline-Fueled Percentage	Diesel-Fueled Percentage	Average Gasoline mpg	Gasoline Consumption (gallons/yr)	Average Diesel mpg	Diesel Consumption (gallons/yr)
6,550,073	69.7%	30.3%	49.9	91,602	7.6	262,140

		Fleet Mix from CalEEMod modeling												
Land Use	ADT	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial	797	56.51%	7.06%	3.53%	3.53%	3.51%	3.51%	5.65%	16.69%	0.00%	0.00%	0.00%	0.00%	0.00%
		Vehicle Percentages by fuel type												
Gasoline-powered:		98%	95%	75%	50%	50%	10%	5%	5%	0%	0%	100%	10%	50%
Diesel-powered:		2%	5%	25%	50%	50%	90%	95%	95%	100%	100%	0%	90%	50%

truck % = 43.48%

Source: EMFAC2025 (v2.0.0) Emission Rates
Region Type: Air District
Region: Mojave Desert AQMD
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for Combustion VMT and Electric VMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, gallon/mile for Fuel Consumption, kWh/mile for Energy Consumption, kg/mile for Hydrogen Consumption.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Fuel Consumption	
Mojave Desert AQMD	2025	HHDT	Aggregate	15	Diesel	0.202832	
Mojave Desert AQMD	2025	HHDT	Aggregate	20	Diesel	0.196203	
Mojave Desert AQMD	2025	HHDT	Aggregate	25	Diesel	0.164018	
Mojave Desert AQMD	2025	HHDT	Aggregate	30	Diesel	0.153248	
Mojave Desert AQMD	2025	HHDT	Aggregate	35	Diesel	0.144889	
Mojave Desert AQMD	2025	HHDT	Aggregate	40	Diesel	0.139149	
Mojave Desert AQMD	2025	HHDT	Aggregate	45	Diesel	0.135877	
Mojave Desert AQMD	2025	HHDT	Aggregate	50	Diesel	0.135192	
Mojave Desert AQMD	2025	HHDT	Aggregate	55	Diesel	0.137234	Hvy-Duty
Mojave Desert AQMD	2025	HHDT	Aggregate	60	Diesel	0.141805	Vehicle
Mojave Desert AQMD	2025	HHDT	Aggregate	65	Diesel	0.148966	Average
Mojave Desert AQMD	2025	HHDT	Aggregate	70	Diesel	0.148879	MPG
Mojave Desert AQMD	2025	MHDT	Aggregate	15	Diesel	0.152259	7.56
Mojave Desert AQMD	2025	MHDT	Aggregate	20	Diesel	0.129984	
Mojave Desert AQMD	2025	MHDT	Aggregate	25	Diesel	0.116983	
Mojave Desert AQMD	2025	MHDT	Aggregate	30	Diesel	0.108168	
Mojave Desert AQMD	2025	MHDT	Aggregate	35	Diesel	0.101889	
Mojave Desert AQMD	2025	MHDT	Aggregate	40	Diesel	0.097639	
Mojave Desert AQMD	2025	MHDT	Aggregate	45	Diesel	0.095793	
Mojave Desert AQMD	2025	MHDT	Aggregate	50	Diesel	0.096209	
Mojave Desert AQMD	2025	MHDT	Aggregate	55	Diesel	0.099032	
Mojave Desert AQMD	2025	MHDT	Aggregate	60	Diesel	0.104184	
Mojave Desert AQMD	2025	MHDT	Aggregate	65	Diesel	0.111733	
Mojave Desert AQMD	2025	MHDT	Aggregate	70	Diesel	0.111194	
Mojave Desert AQMD	2025	LDA	Aggregate	15	Gasoline	0.05429	
Mojave Desert AQMD	2025	LDA	Aggregate	20	Gasoline	0.045093	
Mojave Desert AQMD	2025	LDA	Aggregate	25	Gasoline	0.0385	
Mojave Desert AQMD	2025	LDA	Aggregate	30	Gasoline	0.03412	
Mojave Desert AQMD	2025	LDA	Aggregate	35	Gasoline	0.031598	
Mojave Desert AQMD	2025	LDA	Aggregate	40	Gasoline	0.030571	
Mojave Desert AQMD	2025	LDA	Aggregate	45	Gasoline	0.03068	
Mojave Desert AQMD	2025	LDA	Aggregate	50	Gasoline	0.031607	
Mojave Desert AQMD	2025	LDA	Aggregate	55	Gasoline	0.032954	Lt-Duty
Mojave Desert AQMD	2025	LDA	Aggregate	60	Gasoline	0.034362	Vehicle
Mojave Desert AQMD	2025	LDA	Aggregate	65	Gasoline	0.035538	Average
Mojave Desert AQMD	2025	LDA	Aggregate	70	Gasoline	0.03751	MPG
Mojave Desert AQMD	2025	LDT1	Aggregate	15	Gasoline	0.065551	49.9
Mojave Desert AQMD	2025	LDT1	Aggregate	20	Gasoline	0.054435	
Mojave Desert AQMD	2025	LDT1	Aggregate	25	Gasoline	0.046458	
Mojave Desert AQMD	2025	LDT1	Aggregate	30	Gasoline	0.041148	
Mojave Desert AQMD	2025	LDT1	Aggregate	35	Gasoline	0.038079	
Mojave Desert AQMD	2025	LDT1	Aggregate	40	Gasoline	0.036816	
Mojave Desert AQMD	2025	LDT1	Aggregate	45	Gasoline	0.036929	
Mojave Desert AQMD	2025	LDT1	Aggregate	50	Gasoline	0.038034	
Mojave Desert AQMD	2025	LDT1	Aggregate	55	Gasoline	0.039651	
Mojave Desert AQMD	2025	LDT1	Aggregate	60	Gasoline	0.041354	
Mojave Desert AQMD	2025	LDT1	Aggregate	65	Gasoline	0.042797	
Mojave Desert AQMD	2025	LDT1	Aggregate	70	Gasoline	0.044706	