

Appendix A

Air, Energy, and Health Risk Assessment
Impact Analysis

**AIR QUALITY, ENERGY, AND HEALTH RISK
ASSESSMENT IMPACT ANALYSIS**

BRIDGE POINT SOUTH BAY VII PROJECT

CITY OF LOS ANGELES

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
Air Basin	South Coast Air Basin
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CO	Carbon monoxide
CO ₂	Carbon dioxide
City	City of Los Angeles
CPUC	California Public Utilities Commission
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
°F	Fahrenheit
FTIP	Federal Transportation Improvement Program
HAP	Hazardous Air Pollutants
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
MATES	Multiple Air Toxics Exposure Study
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen oxides

NO ₂	Nitrogen dioxide
O ₃	Ozone
OPR	Office of Planning and Research
Pb	Lead
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SIP	State Implementation Plan
SO _x	Sulfur oxides
TAC	Toxic air contaminants
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, and Health Risk Assessment (HRA) Impact Analysis has been completed to determine the air quality, energy, and HRA impacts associated with the proposed Bridge Point South Bay VII project (proposed project). The following is provided in this report:

- A description of the proposed project;
- A description of the atmospheric setting;
- A description of the air quality regulatory framework;
- A description of the energy conservation regulatory framework;
- A description of the air quality, and energy thresholds including the California Environmental Quality Act (CEQA) significance thresholds;
- An analysis of the conformity of the proposed project with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP);
- An analysis of the short-term construction related and long-term operational air quality, and energy impacts;
- An analysis of the cancer and non-cancer risks (acute and chronic) from operational TAC emissions; and
- An analysis of the conformity of the proposed project with all applicable energy conservation plans and policies.

1.2 Site Locations and Study Area

The project site is located in the City of Los Angeles (City) located at 1355 West Sepulveda Boulevard. The 7.40-acre project site is currently developed with a miniature golf facility. The project site is bounded by industrial and warehouse uses to the north and west, multi-family homes to the east, and Sepulveda Boulevard, a small oilfield with a single pump jack and single-family homes to the south. The project local study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are multi-family homes located adjacent to the project site on the east side. There are also single-family homes located as near as 110 feet south of the project site. The nearest school is Meyler Street Elementary School, which is located as near as 0.7 mile north of the project site. The surrounding community in this census tract is an environmentally disadvantaged community under SB 535 and residential uses to the east of the site are in the Wilmington, Carson, West Long Beach AB 617 community.

1.3 Proposed Project Description

The proposed project consists of development of a 174,211 square foot warehouse facility and a 190-space parking lot. The proposed warehouse facility would include 10,000-square feet of office space and the remainder of the building area is expected to be used for light industrial, light manufacturing,

assembly, and/or distribution of finished goods and materials that may include a last mile delivery facility. The proposed warehouse facility would also include a truck loading area on the west side of the warehouse. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Air Quality, and Energy Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

South Coast Air Quality Management District Rules

The following lists the SCAQMD rules that are applicable, but not limited to the proposed project.

- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 Fugitive Dust – Controls the emissions of fugitive dust;
- Rules 1108 and 1108.1 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt;
- Rule 1113 Architectural Coatings – Controls the VOC content in paints and solvents; and
- Rule 1143 Paint Thinners – Controls the VOC content in paint thinners.

State of California Rules

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to the proposed project.

- CCR Title 13, Article 4.8, Chapter 9, Section 2449 – In use Off-Road Diesel Vehicles;
- CCR Title 13, Section 2025 – On-Road Diesel Truck Fleets;
- CCR Title 24 Part 6 – California Building Energy Standards; and
- CCR Title 24 Part 11 – California Green Building Standards.

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines air quality, and energy checklist questions.

Conflict with or obstruct implementation of the applicable air quality plan?

Potentially significant impact. Mitigation Measures 1 and 2 have been provided to reduce this impact to less than significant levels.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Potentially significant impact. Mitigation Measures 1 and 2 have been provided to reduce this impact to less than significant levels.

Expose sensitive receptors to substantial pollutant concentrations?

Potentially significant impact. Mitigation Measures 1 and 2 have been provided to reduce this impact to less than significant levels.

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact.

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

Less than significant impact.

Conflict with or obstruct a state or local plan for renewable energy;

Less than significant impact.

1.5 Mitigation Measures for the Proposed Project

This analysis found that implementation of the State and SCAQMD air quality, and energy reduction regulations detailed in Section 1.4 above and through implementation of the following mitigation, would limit criteria pollutants, toxic air contaminants, and odors from the proposed project to less than significant levels.

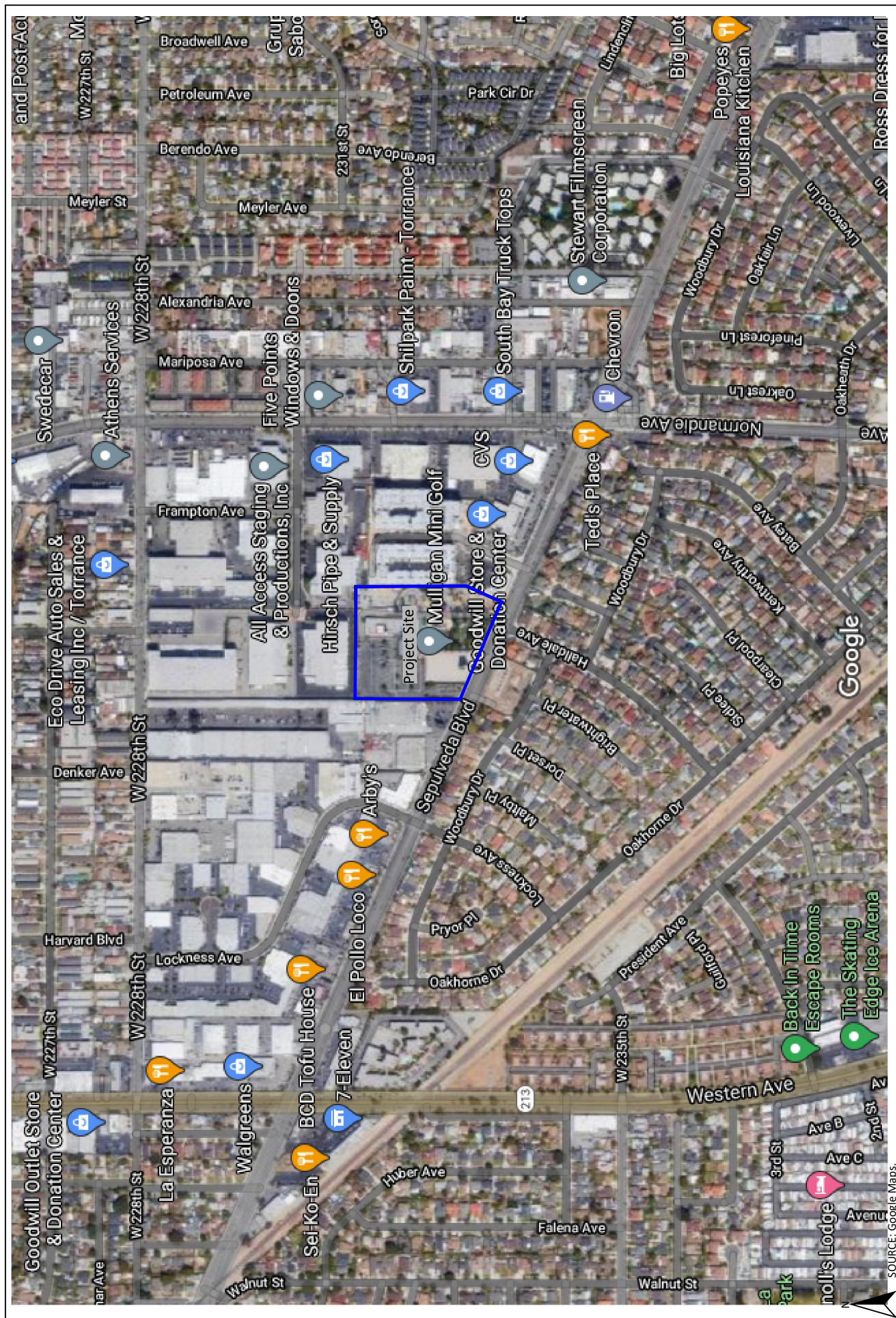
Mitigation Measure 1

The construction contractor shall:

- Water a minimum of three times daily to control dust during ground-disturbing activities,
- Apply chemical soil stabilizers on inactive areas (i.e., disturbed areas within the site that are unused for four consecutive days) during grading operations,
- Suspend grading operations when wind speeds exceed 25 miles per hour,
- At least once a day during ground-disturbing activities, operate PM10-efficient street sweepers or roadway-washing trucks on adjacent roadways to remove dirt dropped by construction vehicles or dried mud carried off by trucks moving or bringing materials, and
- Schedule construction activities in accordance with specific SCAQMD directives.

Mitigation Measure 2:

All off-road diesel-powered equipment (non-street legal), that is greater than 50 horsepower that is used onsite during construction of the project shall meet USEPA Tier 4 off-road emission standards. If substantial evidence is provided by the permittee or its contractor that such equipment is not commercially available, including a description of commercially reasonable efforts to secure such equipment, then the permittee or its contractor shall comply with an off-road equipment plan approved by the City prior to the issuance of grading permits. The off-road equipment plan must demonstrate that the off-road equipment used on-site to construct the project would reduce construction emissions to below SCAQMD standards.





2.0 AIR POLLUTANTS

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

2.1 Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of: ozone, NO_x, CO, SO_x, lead (Pb), and particulate matter (PM). The ozone precursors consist of NO_x and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides

Nitrogen Oxides (NO_x) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x are colorless and odorless, concentrations of NO₂ can often be seen as a reddish-brown layer over many urban areas. NO_x form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO₂, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air, instead it is created by a chemical reaction between NO_x and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NO_x and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves,

gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

Sulfur Oxide (SO_x) gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SO_x dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

Particle matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM₁₀) that are also known as *Respirable Particulate Matter* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM_{2.5}) that are also known as *Fine Particulate Matter* have been designated as a subset of PM₁₀ due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O₃ are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

VOC is not classified as a criteria pollutant, since VOCs by themselves are not a known source of adverse health effects. The primary health effects of VOCs result from the formation of O₃ and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered toxic air contaminants (TACs). There are no separate health standards for VOCs as a group.

2.2 Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is DPM. DPM is a subset of PM_{2.5} because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the CARB to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

The various pollutants within DPM that also cause acute and chronic health impacts are detailed below in Table A. Table A was developed through crosschecking all diesel emissions pollutants provided in San Diego Air Pollutant Control District's (SDAPCD) Diesel Fired Engines Emissions Factor Table to the list of acute and chronic reference exposure levels provided at: <http://oehha.ca.gov/air/allrels.html>.

According to the California Office of Environmental Health and Hazards Assessment (OEHHHA), no acute risk had been found to be directly created from DPM, so there is no acute AREL assigned to DPM. However, as detailed in Table A, other TAC emissions associated with diesel exhaust do have an acute REL assigned to them. In order to account for the acute risk from all TAC emissions associated with diesel emissions, a hypothetical acute REL was calculated for DPM through multiplying each TAC with an acute REL to its diesel weight fraction and then adding together the results, which resulted in a hypothetical acute AREL of 2,189 for diesel emissions.

Table A – Diesel Emission Pollutants that Cause Acute and Chronic Health Impacts

TAC	TAC Potency Factors (µg/m ³) ¹		Percent of DPM Emission Rate ³	Target Organ Systems
	Acute REL ²	Chronic REL		
1,3-Butadiene	660	140	0.51%	Development
Acetaldehyde	470	140	1.84%	Eyes, respiratory system (sensory irritation)
Acrolein	2.5	0.35	0.08%	Eyes, respiratory system
Arsenic	0.2	0.015	0.004%	Reproductive/developmental, cardiovascular system, nervous system
Benzene	27	3	0.44%	Hematologic system, immune system, reproductive/developmental
Cadmium	--	0.02	0.004%	kidney, respiratory system
Chlorobenzene	--	1,000	0.0005%	Eyes, respiratory system
Chromium (hexavalent)	--	0.2	0.001%	Respiratory system, hematologic system
Copper	100	--	0.01%	Respiratory system
Ethyl benzene	--	5	0.03%	Liver, kidney, developmental
Formaldehyde	55	9	4.07%	Eyes, immune system, respiratory
Hexane	--	200	0.06%	Nervous system
Hydrogen Chloride	2,100	9	0.44%	Eyes, respiratory system
Manganese	--	0.09	0.01%	Nervous system
Mercury	0.6	0.03	0.005%	Reproductive/developmental
Naphthalene	--	9	0.05%	Respiratory system
Nickel	0.2	002	0.01%	Immune system, respiratory system
Propylene	--	3000	1.10%	Respiratory System
Selenium	--	20	0.01%	Liver, cardiovascular system, nervous system
Toluene	37000	300	0.25%	Nervous system, eyes, respiratory system, reproductive/developmental
Xylene	22000	700	0.10%	Eyes, nervous and respiratory systems
DPM	--	5	--	Respiratory system

Notes:

¹ Potency factors obtained from: <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>

² REL = Reference Exposure Level

³ Percentage of DPM Emission Rate calculated by dividing the pollutant's pounds per 1,000 gallons rate by the PM2.5 pounds per 1,000 gallons rate provided by the SDAPCD
Sources: SDAPCD, 2011 and OEHHA, 2014.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. The nearest historic asbestos mine to the project site, as identified in the *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*, prepared by U.S. Geological Survey, is located at Asbestos Mountain, which is approximately 100 miles east of the project site in the San Jacinto Mountains. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

3.0 AIR QUALITY MANAGEMENT

The air quality at the project site is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

3.1 Federal – United States Environmental Protection Agency

The Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The Environmental Protection Agency (EPA) was created in 1970 in order to consolidate research, monitoring, standard-setting and enforcement authority into a single agency.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants were identified using medical evidence and are shown below in Table B.

Table B – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O ₃)	0.09 ppm / 1-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
	0.07 ppm / 8-hour		
Carbon Monoxide (CO)	20.0 ppm / 1-hour	35.0 ppm / 1-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
	9.0 ppm / 8-hour	9.0 ppm / 8-hour	
Nitrogen Dioxide (NO ₂)	0.18 ppm / 1-hour	100 ppb / 1-hour	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
	0.030 ppm / annual	0.053 ppm / annual	
Sulfur Dioxide (SO ₂)	0.25 ppm / 1-hour	75 ppb / 1-hour	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	0.04 ppm / 24-hour	0.14 ppm/annual	
Suspended Particulate Matter (PM ₁₀)	50 µg/m ³ / 24-hour	150 µg/m ³ / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.
	20 µg/m ³ / annual		

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Suspended Particulate Matter (PM _{2.5})	12 µg/m ³ / annual	35 µg/m ³ / 24-hour 12 µg/m ³ / annual	
Sulfates	25 µg/m ³ / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m ³ / 30-day	0.15 µg/m ³ / 3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years. As indicated below in Table C, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone and PM_{2.5} and partial non-attainment for lead. Currently, the Air Basin is in attainment with the national ambient air quality standards for CO, PM₁₀, SO₂, and NO₂.

Table C – South Coast Air Basin Attainment Status

Criteria Pollutant	Standard	Averaging Time	Designation ^{a)}	Attainment Date ^{b)}
1-Hour Ozone ^{c)}	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone ^{d)}	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	8/3/2038
	NAAQS	2015 8-Hour (0.070 ppm)	Pending – Expect Nonattainment (Extreme)	Pending (beyond 2032)
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032
CO	NAAQS	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)

Criteria Pollutant	Standard	Averaging Time	Designation ^{a)}	Attainment Date ^{b)}
NO ₂ ^{e)}	CAAQS	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
	NAAQS	2010 1-Hour (0.10 ppm)	Unclassifiable/ Attainment	N/A (attained)
	NAAQS	1971 Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-Hour (0.18 ppm) Annual (0.030 ppm)	Attainment	---
SO ₂ ^{f)}	NAAQS	2010 1-Hour (75 ppb)	Designations Pending (expect Unclassifiable/ Attainment)	N/A (attained)
	NAAQS	1971 24-Hour (0.14 ppm) 1971 Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (attained)
PM10	NAAQS	1987 24-hour (150 µg/m ³)	Attainment (Maintenance) ^{g)}	7/26/2013 (attained)
	CAAQS	24-hour (50 µg/m ³) Annual (20 µg/m ³)	Nonattainment	N/A
PM2.5 ^{h)}	NAAQS	2006 24-Hour (35 µg/m ³)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m ³)	Attainment (final determination pending)	8/24/2016 (attained 2013)
	NAAQS	2012 Annual (12.0 µg/m ³)	Nonattainment (Moderate)	12/31/2021
	CAAQS	Annual (12.0 µg/m ³)	Nonattainment	N/A
Lead ⁱ⁾	NAAQS	2008 3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015

Source: SCAQMD, February 2016

Notes:

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration

c) The 1979 1-hour O₃ standard (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm. Effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour O₃ NAAQS (0.08 ppm) was revoked in the 2008 O₃ implementation rule, effective 4/6/15; there are continuing obligations under the revoked 1997 and revised 2008 O₃ until they are attained.

e) New NO₂ 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO₂ standard retained

f) The 1971 annual and 24-hour SO₂ standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO₂ 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.

g) Annual PM10 standard was revoked, effective December 18, 2006; 24-hour PM10 NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM10 maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.

h) The attainment deadline for the 2006 24-Hour PM2.5 NAAQS was 12/31/15 for the former "moderate" classification; EPA approved reclassification to "serious", effective 2/12/16 with an attainment deadline of 12/31/19; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m³; new annual designations were final 1/15/15, effective 4/15/15; on July 25, 2016 EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m³) and 24-hour PM2.5 (65 µg/m³) NAAQS, effective August 24, 2016

i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

In 2015, one or more stations in the Air Basin exceeded the most current federal standards on a total of 146 days (40 percent of the year), including: 8-hour ozone (113 days over 2015 ozone NAAQS), 24-hour PM2.5 (30 days, including near-road sites; 25 days for ambient sites only), PM10 (2 days), and NO₂ (1 day). Despite substantial improvement in air quality over the past few decades, some air monitoring stations in the Air Basin still exceed the NAAQS for ozone more frequently than any other area in the United States.

Seven of the top 10 stations in the nation most frequently exceeding the 2015 8-hour ozone NAAQS in 2015 were located within the Air Basin, including stations in San Bernardino, Riverside, and Los Angeles Counties (SCAQMD, 2016).

PM_{2.5} levels in the Air Basin have improved significantly in recent years. By 2013 and again in 2014 and 2015, there were no stations measuring PM_{2.5} in the Air Basin that violated the former 1997 annual PM_{2.5} NAAQS (15.0 µg/m³) for the 3-year design value period. On July 25, 2016 the EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m³) and 24-hour PM_{2.5} (65 µg/m³) NAAQS, effective August 24, 2016. Of the 17 federal PM_{2.5} monitors at ambient stations in the Air Basin for the 2013-2015 period, five stations had design values over the current 2012 annual PM_{2.5} NAAQS (12.0 µg/m³), including: Mira Loma (Air Basin maximum at 14.1 µg/m³), Rubidoux, Fontana, Ontario, Central Los Angeles, and Compton. For the 24-hour PM_{2.5} NAAQS (35.0 µg/m³) there were 14 stations in the Air Basin in 2015 that had one or more daily exceedances of the standard, with a combined total of 25 days over that standard in the Air Basin. While it was previously anticipated that the Air Basin's 24-hour PM_{2.5} NAAQS would be attained by 2015, this did not occur based on the data for 2013 through 2015. The higher number of days exceeding the 24-hour PM_{2.5} NAAQS over what was expected is largely attributed to the severe drought conditions over this period that allowed for more stagnant conditions in the Air Basin with multi-day buildups of higher PM_{2.5} concentrations. This was caused by the lack of storm-related dispersion and rain-out of PM and its precursors (SCAQMD, 2016).

The Air Basin is currently in attainment for the federal standards for SO₂, CO, NO₂, and PM₁₀. The Air Basin is designated as partial nonattainment for lead and is based on two source specific monitors in Vernon and in the City of Industry that are both near battery recycling facilities. The 2012 Lead SIP for Los Angeles County provides measures to meet attainment of lead by December 31, 2015. Current monitoring data shows that lead is now below the standards at all monitoring stations, however it will take three years of meeting the standards before Los Angeles County can request to be re-designated by the EPA. While the concentration level of the 1-hour NO₂ federal standard (100 ppb) was exceeded in the Air Basin for one day in 2015 (Long Beach- Hudson Station), the NAAQS NO₂ design value has not been exceeded. Therefore, the Air Basin remains in attainment of the NO₂ NAAQS (SCAQMD, 2016).

3.2 State – California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants are shown above in Table B. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The Air Basin has been designated by the CARB as a non-attainment area for ozone, PM₁₀ and PM_{2.5}. Currently, the Air Basin is in attainment with the ambient air quality standards for CO, NO₂, SO₂, lead, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to all warehouse projects in the State.

Assembly Bill 2588

The Air Toxics “Hot Spots” Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release in California. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the California Air Resources Board (CARB) adopted California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 to reduce diesel particulate matter (DPM) and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet’s average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). Currently, no commercial operation in California may add any equipment to their fleet that has a Tier 0 or Tier 1 engine. By January 1, 2018 medium and large fleets will be restricted from adding Tier 2 engines to their fleets and by January 2023, no commercial operation will be allowed to add Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tier 0 and 1 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. By January 1, 2014, 50 percent of a truck fleet is required to have installed Best Available Control Technology (BACT) for NOx emissions and 100 percent of a truck fleet installed BACT for PM10 emissions. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

Senate Bill 535

In 2012, the Legislature passed Senate Bill (SB) 535, which targets disadvantaged communities in California for investment of proceeds from the State’s cap-and-trade program to improve public health, quality of life, and economic opportunity in California’s most burdened communities, while also reducing pollution. SB 535 directed that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities. The legislation gave CalEPA responsibility for identifying those communities. In 2016, the Legislature passed Assembly Bill (AB) 1550, which now requires that 25 percent of proceeds from the fund be spent on projects located in disadvantaged

communities. CalEPA has prepared a list of disadvantaged communities for the purpose of SB 535 and CalEnviroScreen is a general mapping tool developed by OEHHA to help identify California communities that are most affected by sources of pollution.

Community Air Protection Program

In response to AB 617 (2017), CARB established the Community Air Protection Program (CAPP). The CAPP's focus is to reduce exposure in communities most impacted by air pollution. This Statewide effort includes community air monitoring and community emissions reduction programs. In addition, the Legislature appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State. This new effort provides an opportunity to continue to enhance air quality planning efforts and better integrate community, regional, and State level programs to provide clean air for all Californians.

3.3 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The *Final 2016 Air Quality Management Plan* (2016 AQMP) was adopted by the SCAQMD Board on March 3, 2016 and was adopted by CARB on March 23, 2017 for inclusion into the California State Implementation Plan (SIP). The 2016 AQMP was prepared in order to meet the following standards:

- 8-hour Ozone (75 ppb) by 2032
- Annual PM_{2.5} (12 µg/m³) by 2021-2025
- 8-hour Ozone (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
- 1-hour Ozone (120 ppb) by 2023 (updated from the 2012 AQMP)
- 24-hour PM_{2.5} (35 µg/m³) by 2019 (updated from the 2012 AQMP)

In addition to meeting the above standards, the 2016 AQMP also includes revisions to the attainment demonstrations for the 1997 8-hour ozone NAAQS and the 1979 1-hour ozone NAAQS. The prior 2012 AQMP was prepared in order to demonstrate attainment with the 24-hour PM_{2.5} standard by 2014 through adoption of all feasible measures. The prior 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These “black box” emissions reductions represent 65 percent of the remaining NO_x emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone

NAAQS. Given the magnitude of these needed emissions reductions, additional NO_x control measures have been provided in the 2016 AQMP.

The 2016 AQMP provides a new approach that focuses on available, proven and cost effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities to promote reductions in GHG emissions and TAC emissions as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance to the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at <http://www.aqmd.gov/ceqa/hdbk.html>, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

The following lists the SCAQMD rules that are applicable but not limited to residential development projects in the Air Basin.

Rule 402 - Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes 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. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403- Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

-
- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
 - Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
 - Water all exposed areas on active sites at least three times per day and pre-water all areas prior to clearing and soil moving activities.
 - Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas that will remain inactive for 10 days or longer.
 - Pre-water all material to be exported prior to loading, and either cover all loads or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114.
 - Replant all disturbed area as soon as practical.
 - Suspend all grading activities when wind speeds (including wind gusts) exceed 25 miles per hour.
 - Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.

Rules 1108 and 1108.1 – Cutback and Emulsified Asphalt

Rules 1108 and 1108.1 govern the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with SCAQMD Rules 1108 and 1108.1.

Rule 1113 – Architectural Coatings

Rule 1113 governs the sale, use, and manufacturing of architectural coatings and limits the VOC content in sealers, coatings, paints and solvents. This rule regulates the VOC contents of paints available during construction. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Rule 1143 – Paint Thinners

Rule 1143 governs the sale, use, and manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1143.

Rule 1403 – Asbestos Removal

Rule 1403 governs asbestos emissions from demolition and renovation activities. The existing structures on the project site shall be surveyed for asbestos prior to demolition activities. If asbestos is found within the existing structures, the asbestos shall be removed through utilization of the removal procedures detailed in Rule 1403.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. SCAG has prepared the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), adopted April, 2016 to address GHG reduction targets for passenger vehicles and light duty truck sources, and the *2019 Federal Transportation Improvement Program* (FTIP), adopted September 2018, which addresses regional development and growth forecasts and provides an air quality conformance analysis to demonstrate compliance with federal air quality standards.¹ Although the RTP/SCS and FTIP are primarily planning documents for future transportation projects a key component of these plans is to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service, as a way to reduce vehicular emissions. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The RTP/SCS, FTIP, and AQMP are based on growth forecasts based on regional socio-economic modeling by SCAG and land use designations originating within the City and County General Plans.

3.4 Local – City of Los Angeles

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the AQMPs. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

1 On September 3, 2020 SCAG's Regional Council adopted the Connect SoCal 2020-2045 RTP/SCS. The plan charts a path toward a more mobile, sustainable and prosperous region by making key connections: between transportation networks, between planning strategies and between the people whose collaboration can make plans a reality. SCAG's AQMP has not been updated to include the 2020-2045 RTP/SCS.

4.0 ENERGY CONSERVATION MANAGEMENT

The regulatory setting related to energy conservation is primarily addressed through State and City regulations, which are discussed below.

4.1 State

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976 the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants, that effectively resulted in a moratorium of any new nuclear generating plants in the State. The following details specific regulations adopted by the State in order to reduce the consumption of energy.

California Code of Regulations (CCR) Title 20

On November 3, 1976 the CEC adopted the *Regulations for Appliance Efficiency Standards Relating to Refrigerators, Refrigerator-Freezers and Freezers and Air Conditioners*, which were the first energy-efficiency standards for appliances. The appliance efficiency regulations have been updated several times by the Commission and the most current version is the *2016 Appliance Efficiency Regulations*, adopted January 2017 and now includes almost all types of appliances and lamps that use electricity, natural gas as well as plumbing fixtures. The authority for the CEC to control the energy-efficiency of appliances is detailed in California Code of Regulations (CCR), Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609.

California Code of Regulations (CCR) Title 24, Part 6

The CEC is also responsible for implementing the CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Part 6) that were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. In 2008 the State set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. On January 1, 2020 the 2019 standards went into effect, that have been designed so that the average new home built in California will now use zero-net-energy and that non-residential buildings will use about 30 percent less energy than the 2016 standards due mainly to lighting upgrades. The 2019 standards also encourage the use of battery storage and heat pump water heaters, require the more widespread use of LED lighting, as well as improve the building's thermal envelope through high performance attics, walls and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Building

Standards are also updated every three years and the current version is the 2019 California Green Building Standard Code that become effective on January 1, 2020.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include: an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provides design requirements for buildings in tsunami zones, increases Minimum Efficiency Reporting Value (MERV) for air filters from 8 to 13, increased electric vehicle charging requirements in parking areas, and sets minimum requirements for use of shade trees.

Senate Bill 100

Senate Bill 100 (SB 100) was adopted September 2018 and requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity. SB 100 supersedes the renewable energy requirements set by SB 350, SB 1078, SB 107, and SB X1-2. However, the interim renewable energy thresholds from the prior Bills of 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, will remain in effect.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately 1.5 percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and requires that the California Energy Commission working with the State Air Resources Board prepare biannual assessments of the statewide electric vehicle charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109) was adopted October 2007, also known as the Lighting Efficiency and Toxics Reduction Act, prohibits the manufacturing of lights after January 1, 2010 that contain levels of hazardous substances prohibited by the European Union pursuant to the RoHS Directive. AB 1109 also requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by: (1) At least 50 percent reduction from 2007 levels for indoor residential lighting; and (2) At least 25 percent reduction from 2007 levels for indoor commercial and all outdoor lighting by 2018. AB 1109 would reduce GHG emissions through reducing the amount of electricity required to be generated by fossil fuels in California.

4.2 Local - City of Los Angeles

Green LA and Climate LA

Green LA was released in May 2007, and sets forth a goal of reducing the City's GHG emissions to 35 percent below 1990 levels by the year 2030. Climate LA, approved in 2008 is the implementation program that provides detailed information about each action item discussed in Green LA. Climate LA includes focus areas addressing environmental issues, including, but not limited to energy, water transportation, and waste. The energy focus area includes action items with measures that aim to increase the use of renewable energy to 35 percent by 2020, reduce the use of coal-fired power plants, and present a comprehensive set of green building policies to guide and support private sector development. Such energy saving measures include use of LED lighting, increased use of renewable energy, and increased solid waste diversion.

City of Los Angeles Green Building Code

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2019 CALGreen Code. Projects filed on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. Specific Mandatory requirements and elective measures are provided for three categories:

1. Low-Rise Residential Buildings;
2. Nonresidential and High-Rise Residential Buildings; and
3. Additions and Alterations to Nonresidential and High-Rise Residential Buildings.

Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. Mandatory measures include installation of electrical raceways to future electric vehicle supply equipment (EVSE), reduce water use by 20 percent compared to maximum allowable water use per plumbing fixture as required by the LA Municipal Code, and use of roofing material to reduce heat island effect.

City of Los Angeles Sustainable City pLAn/ LA's Green New Deal

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.¹⁸ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail L.A.'s vision

for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

Within the Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions, and the following measures would have co-benefits with respect to higher energy efficiencies, through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 MBTU/sqft in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

5.0 ATMOSPHERIC SETTING

5.1 South Coast Air Basin

The project site is located within western Los Angeles County, which is part of the South Coast Air Basin (Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

5.2 Local Climate

The climate of southwestern Los Angeles County is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern. Although the Air Basin is semi-arid, the air near the surface in southwestern Los Angeles County is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the Air Basin by offshore winds, the ocean effect is dominant. Periods of heavy fog are frequent and low stratus clouds, often referred to as “high fog” are a characteristic feature.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in southwestern Los Angeles County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but as discussed above, these coastal winds carry significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the Air Basin into the interior valleys which become trapped by the mountains that border the eastern and northern edges of the Air Basin.

In the summer, strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the Air Basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for Long Beach Aquarium Station, which is the nearest weather station to the project site with historical data is shown below in Table D. Table D shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area

varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table D – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)
January	65.2	44.8	2.88
February	66.1	46.9	2.73
March	67.5	48.5	1.74
April	69.5	51.3	1.00
May	71.7	54.9	0.20
June	74.3	57.8	0.06
July	79.7	61.5	0.00
August	80.7	62.1	0.03
September	79.5	60.2	0.21
October	75.6	56.1	0.37
November	71.8	50.2	1.22
December	66.9	46.6	2.28
Annual	72.4	53.4	12.72

Source: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7876>

5.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the Air Basin. Estimates of the existing emissions in the Air Basin provided in the 2012 AQMP, indicate that collectively, mobile sources account for 59 percent of the VOC, 88 percent of the NO_x emissions and 40 percent of directly emitted PM_{2.5}, with another 10 percent of PM_{2.5} from road dust. The 2016 AQMP found that since 2012 AQMP projections were made stationary source VOC emissions have decreased by approximately 12 percent, but mobile VOC emissions have increased by 5 percent. The percentage of NO_x emissions remain unchanged between the 2012 and 2016 projections.

SCAQMD has divided the Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located on the southwestern edge of air monitoring area 3, which covers the Southwest Coastal LA County. Since not all air monitoring stations measure all of the tracked pollutants, the data from the following two monitoring stations, listed in the order of proximity to the project site have been used: Long Beach Station (Long Beach Station) and Compton Station (Compton Station).

The Long Beach Station (Long Beach Station), which is located approximately 4.8 miles southeast of the project site at 2425 Webster Street, Long Beach and the Compton Station (Compton Station) is located approximately 8.6 miles northeast of the project site at 700 North Bullis Road, Compton. The monitoring data is presented in Table E and shows the most recent three years of monitoring data from CARB. Ozone, NO₂, and PM₁₀ were measured at the Long Beach Station and PM_{2.5} were measured at the Compton Station. CO measurements have not been provided, since CO is currently in attainment in the Air Basin and monitoring of CO within the Air Basin ended on March 31, 2013.

Table E – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year ¹		
	2016	2017	2018
Ozone: ¹			
Maximum 1-Hour Concentration (ppm)	0.079	0.082	0.074
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.059	0.068	0.063
Days > NAAQS (0.070 ppm)	0	0	0
Days > CAAQS (0.070 ppm)	0	0	0
Nitrogen Dioxide: ¹			
Maximum 1-Hour Concentration (ppb)	75.6	89.5	85.3
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10): ¹			
Maximum 24-Hour National Measurement (ug/m ³)	75.0	79.0	84.0
Days > NAAQS (150 ug/m ³)	0	0	0
Days > CAAQS (50 ug/m ³)	8	10	4
Annual Arithmetic Mean (AAM) (ug/m ³)	31.9	33.5	32.7
Annual > NAAQS (50 ug/m ³)	No	No	No
Annual > CAAQS (20 ug/m ³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5): ²			
Maximum 24-Hour National Measurement (ug/m ³)	36.3	66.7	49.4
Days > NAAQS (35 ug/m ³)	1	5	2
Annual Arithmetic Mean (AAM) (ug/m ³)	11.0	13.2	13.2
Annual > NAAQS and CAAQS (12 ug/m ³)	No	Yes	Yes

Notes: Exceedances are listed in **bold**. CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.

¹ Data obtained from the Long Beach Station.

² Data obtained from the Compton Station.

Source: <http://www.arb.ca.gov/adam/>

Ozone

The State 1-hour concentration standard for ozone did not record an exceedance over the past three years at the Long Beach Station. The State 8-hour ozone standard did not record an exceedance over the past three years at the Long Beach Station. The Federal 8-hour ozone standard did not record an exceedance over the past three years at the Long Beach Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the

ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Nitrogen Dioxide

The Long Beach Station did not record an exceedance of either the Federal or State 1-hour NO₂ standards for the last three years.

Particulate Matter

The State 24-hour concentration standard for PM₁₀ did record an exceedance of four to ten days at the Long Beach Station for the past three years. Over the past three years the Federal 24-hour standard for PM₁₀ did not record an exceedance at the Long Beach Station. The annual PM₁₀ concentration at the Long Beach Station has exceeded the State standard for all of the past three years and has not exceeded the Federal standard for the past three years.

Over the past three years the federal 24-hour concentration standard for PM_{2.5} has been exceeded between 1 and 5 day each year over the past three years at the Compton Station. The annual PM_{2.5} concentrations at the San Bernardino Station has been exceeded the State standards two of the past three years. There does not appear to be a noticeable trend for PM₁₀ or PM_{2.5} in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

5.4 Toxic Air Contaminant Levels in the Air Basin

In order to determine the Air Basin-wide risks associated with major airborne carcinogens, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES) studies. According to the SCAQMD's MATES-IV study, the project site has an estimated cancer risk of 355 per million persons chance of cancer. In comparison, the average cancer risk for the Air Basin is 991 per million persons, which is based on the use of age-sensitivity factors detailed in the OEHHA Guidelines (OEHHA, 2015).

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population ranges between 1 in 3 to 4 and 1 in 3, or a risk of about 300,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants.

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 CalEEMod Model Input Parameters

The criteria air pollution impacts created by the proposed project have been analyzed through use of CalEEMod Version 2016.3.2. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for the South Coast Air Basin portion of Los Angeles County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2014 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of South Coast Air Basin portion of Los Angeles County, a Climate Zone of 8, utility company of Los Angeles Department of Water and Power and an opening year of 2022 was utilized in this analysis.

Land Use Parameters

The proposed project consists of demolition of the existing Mulligan Family Fun Center and development of a 174,211 square foot warehouse facility with a 190-space parking lot. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table F.

Table F – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size ¹	Lot Acreage ²	Building/Paving ³ (square feet)
Warehouse & Office Space	Unrefrigerated Warehouse-No Rail	174.211 TSF	5.70	174,211
Parking Lot	Parking Lot	190 PS	1.70	152,460

Notes:

¹ TSF = Thousand Square Feet; PS = Parking Space

² Lot acreage calculated based on the total project site of 7.40-acres.

³ Building/Paving square feet represent area where architectural coatings will be applied. Paved area based on CalEEMod default values.

Construction Parameters

Construction activities are anticipated to start around spring 2021 and take approximately 15 months to complete. The phases of construction activities that have been analyzed are detailed below and include: 1) Demolition; 2) Oil Wells Abandonment, 3) Grading, 4) Building construction, 5) Paving; and 6) Application of architectural coatings. Since the project site is currently developed, the site preparation activities that consist of removal of rocks and tree stumps would occur as part of the demolition phase and would not occur as a separate phase during construction of the proposed project.

Demolition

The demolition phase would consist of demolishing the existing Mulligan Family Fun Center that was estimated to contain 13,700 square feet of building space and 5-acres of paved area. The pavement to be removed was assumed to be an average of 4-inches thick and weigh 145 pounds per square foot, which results in 5,264 tons of pavement that would be removed from the project site. For the existing structures, CalEEMod utilizes a factor of 0.046 tons of debris of building material per building square foot. This results in 630 tons of debris that would be generated from demolition of the 13,700 square feet of building space.

Therefore, the combined demolition of pavement and building space would require the removal of 5,894 tons of building material that would be exported from the site and would require 583 haul truck trips (average 29 haul truck trips per day over duration of demolition phase).

The demolition phase has been modeled as starting in April 2021 and would occur over four weeks, which is based on the CalEEMod default timing. The demolition activities would require 15 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the demolition phase. The onsite equipment would consist of one concrete/industrial saw, three excavators, and two rubber tired dozers, which is based on the CalEEMod default equipment mix.

Oil Wells Abandonment

There are currently three existing oil wells on the project site that have been abandoned, however not to current standards. After completion of the demolition phase the three existing wells will be re-abandoned that would occur over a two-month period. The abandonment phase is anticipated to take up to six weeks, with the abandonment of the three wells occurring concurrently. The onsite equipment utilized during the abandonment of one well would consist of a concrete mixer truck and a 800-horsepower generator that would power an electrical drill rig, a separator, and a mud pump. In addition, one well would generate six vendor truck trips for fuel, two for water, and two for delivery/pickup of equipment, for a total of 12 vendor truck trips per week or an average of 2.4 vendor trips per week day.

Since the oil wells abandonment phase would consist of the concurrent abandonment of three wells, the simultaneous operation of equipment would consist of three off-road trucks (concrete mixer trucks) and three 800-horsepower diesel generators that would operate 8 hours per day. According to the CalEEMod User Guide, worker trips are based on 1.25 trips per piece of equipment (four pieces per well or 12 pieces total), which equates to 15 worker trips per day. As detailed above, one well site would generate 2.4 vendor trips per day, as such the three wells would generate up to eight vendor trips per day.

Grading

The grading phase would occur after completion of the demolition phase and was modeled as occurring over four weeks, which is based on the CalEEMod default timing. The grading is anticipated to be balanced, which would result in no dirt being imported or exported from the project site. The onsite equipment utilized during the grading phase would consist of one grader, one rubber tired dozer, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix. The grading activities would generate 15 worker trips per day. In order to account for water truck emissions, six daily vendor truck trips were added to the grading phase.

Building Construction

The building construction would occur after the completion of the grading phase and was modeled as occurring over 11 months, which is based on the CalEEMod default timing. The building construction phase would generate 105 worker trips and 41 vendor trips per day. The onsite equipment would consist of the simultaneous operation of one crane, three forklifts, one generator, one welder, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

Paving

The paving phase would consist of paving the onsite roads, truck loading area, and parking lots. The paving phase was modeled as occurring concurrently with the final four weeks of the building construction phase,

which is based on the CalEEMod default duration for paving. The paving phase would generate 15 worker trips per day. The onsite equipment would consist of the simultaneous operation of two pavers, two paving equipment, and two rollers, which is based on the CalEEMod default equipment mix.

Architectural Coating

The application of architectural coatings was modeled as occurring concurrently with the final eight weeks of the building construction phase. The architectural coating phase was modeled based on covering 261,317 square feet of non-residential interior area, 87,106 square feet of non-residential exterior area, and 4,560 square feet of parking area. The architectural coating phase would generate 21 worker trips per day. The onsite equipment would consist of one air compressor, which is based on the CalEEMod default equipment mix.

Operational Emissions Modeling

The operations-related criteria air pollutant emissions created by the proposed project have been analyzed through use of the CalEEMod model. The proposed project was analyzed in the CalEEMod model based on the land use parameters provided above.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been derived from the *City of Los Angeles VMT Calculator Version 1.3*, that was run by Gibson Transportation Consulting, Inc., which found that the proposed project would generate 1,095 daily vehicle trips.² Since the VMT Calculator does not break out the number of daily truck trips, the percentage of truck trips from the ITE Trip Generation Manual was used. The Traffic Report provided the ITE Trip Generation Rates for the project and shows that 11 percent of daily trips would be generated by trucks. Applying 11 percent to the 1,095 daily vehicle trips results in 122 daily truck trips. Since the ITE Trip Generation Rates do not provide a breakdown between 2-axle, 3-axle, and 4+-axle truck trips, the vehicle mix provided in the *Fontana Truck Trip Generation Study for Heavy Warehouse uses*, August 2003 was utilized, which found warehouse truck trips consist of 24.7 percent 2-axle trucks, 20.6 percent 3-axle trucks, and 54.6 percent 4+-axle trucks.

According to *Review of SCAQMD Staff Comments and Testimony on Warehouse Projects*, prepared by Southern California Leadership Council, March 14, 2014, SCAQMD requires that truck trip length should be set to 40 miles in CalEEMod. In order to account for the longer truck trip length in CalEEMod, the 122 daily truck trips were analyzed under the "Parking Lot" land use because the parking lot use generates no vehicle trips on its own (the row's default are "zeros") so it was an available placeholder allowing analysis solely of the project's trucks without mixing the trucks with any other trip-generating use. For both land uses, the vehicle trips rate and vehicle mix were set to match the vehicle trips and average trip lengths provided in Table G. No other changes were made to the CalEEMod default mobile source parameters.

² Note that the VMT Calculator determined that the project would result in 1,095 daily vehicle trips before application of credits. After application of required bike parking per the LAMC and associated VMT credit, the project is calculated as having 1,088 daily vehicle trips. To be conservative, 1,095 daily vehicle trips is used for this analysis and credit is not taken for the bicycle parking. Credit is conservatively also not taken for the existing uses on the site. Moreover, this analysis does not take credit for the existing uses on the site. Based on ITE trip generation rates, the Project results in 452 net new daily trips. Therefore this analysis is conservative and overestimates the Project's mobile source emissions.

Table G – Inventory of Vehicle Trips During Full Operation of Proposed Project

Proposed Land Use	Land Use Size¹	Daily Trip Generation Rate (trips/day)	Total Daily VMT Trips²	Average Trip Length³ (miles)
Warehouse & Office – Non-Trucks	174.211 TSF	5.59	973	9.3
Parking Lot – Trucks ⁴	190 PS	0.64	122	40

Notes:

¹ TSF = Thousand Square Foot, PS = Parking Space

² Total daily trips were obtained from Gibson Transportation Consulting, Inc.

³ The Average Trip Length for non-trucks was based on the CalEEMod default trip lengths. The Average Trip Length for trucks was obtained from Southern California Leadership Council, 2014

⁴ The truck trips were assigned to “Parking Lot” land use because this land use generates no vehicles trips on its own, and therefore was an available placeholder to analyze the project’s trucks.

The CalEEMod model provides the selection of “mitigation” to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this “mitigation” may represent current conditions, such as development that is in close proximity to an existing transit facility, where a project built at such location would create less vehicle trips and associated emissions than a project that was not built in close proximity to an existing transit facility. The mobile source emissions analysis for the project included the CalEEMod “mitigation” of improved pedestrian network onsite and connecting offsite, and increase transit accessibility within 0.01 mile to the nearest transit to account for the existing Transit Torrance Bus Stop located on Sepulveda Boulevard, adjacent to the project site.

Area Sources

Area sources include emissions from consumer products, landscape equipment, and architectural coatings. The area source emissions were based on the on-going use of the proposed project in the CalEEMod model. No changes were made to the default area source parameters in the CalEEMod model.

Energy Usage

Energy usage includes emissions from electricity and natural gas used onsite.³ The energy usage was based on the ongoing use of the proposed project in the CalEEMod Model. No changes were made to the default energy usage parameters in the CalEEMod model.

The new 2019 Title 24, Part 6 building energy efficiency standards went into effect January 1, 2020 and require new lighting energy improvements that are 30 percent more efficient than the prior 2016 building standards. In order to account for the new standards, the CalEEMod “mitigation” of 30 percent lighting energy improvement was selected. A summary of the new 2019 Title 24 standards can be found at:

[https://www.energy.ca.gov/title24/2019standards/documents/2018 Title 24 2019 Building Standards FAQ.pdf](https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf).

Solid Waste

Waste includes the emissions associated with the processing of waste from the proposed project as well as the emissions from the waste once it is interred into a landfill. The analysis was based on the default

³ While natural gas is not anticipated to be used by the project, it is conservatively assumed in this analysis.

CalEEMod waste generation rate of 340 tons of solid waste per year from the proposed project. No changes were made to the default solid waste parameters or mitigation measures in the CalEEMod model.

The CalEEMod mitigation of a 50 percent reduction in landfill waste was selected to account for implementation of AB 341 that provides strategies to reduce, recycle or compost solid waste by 75 percent by 2020. Only 50 percent was selected, since AB 341 builds upon the waste reduction measures of SB 939 and 1374 and therefore, it was assumed approximately 25 percent of the waste reduction target has already been accounted for in the CalEEMod model.

Water and Wastewater

Water includes the water used for the interior of the buildings as well as for landscaping and is based on the emissions associated with the energy used to transport and filter the water. The analysis was based on the default CalEEMod water usage rate of 40,286,100 gallons per year of water use. No changes were made to the default water and wastewater parameters in the CalEEMod model.

The CalEEMod “mitigation” of the use of low flow faucets and toilets and use of smart irrigation system controllers were selected to account for the implementation of the 2016 CCR Title 24 Part 11 (CalGreen) requirements, which lowered the calculated water use for the proposed project to 34,001,400 gallons per year.

Off-Road Equipment

The activity that would require the use of off-road diesel equipment would be associated with forklifts unloading/loading of truck deliveries that would all occur inside the proposed warehouse structure. Forklifts will not be used outside the warehouse building. As detailed above, operation of the proposed project is anticipated to generate 122 daily truck trips. Based on 15 minutes of unloading/loading activities per truck trip, this would result in 30.5 hours of forklift activities per day. In order to account for the use of other off-road diesel equipment onsite, it has been assumed that off-road equipment would operate a combined total of 30.5 hours per day or four forklifts operating 8 hours per day have been modeled in the CalEEMod model. Since the proposed warehouse is designed with a standard ventilation system that does not provide the enhanced ventilation equipment that are required to operate diesel-powered equipment inside the warehouse , all forklifts were analyzed based on being powered with compressed natural gas (CNG), which provides for a conservative analysis, since according to <https://www.grandviewresearch.com/industry-analysis/forklift-market>, 67.5 percent of new forklifts are zero-emission electric-powered forklifts.

6.2 Energy Use Calculations

The proposed project is anticipated to consume energy during both construction and operation of the proposed project and the parameters utilized to calculate energy use from construction and operation of the proposed project are detailed separately below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (<https://ww3.arb.ca.gov/msei/ordiesel.htm>). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

$$\text{Fuel Used} = \text{Load Factor} \times \text{Horsepower} \times \text{Total Operational Hours} \times \text{BSFC} / \text{Unit Conversion}$$

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table H shows the off-road construction equipment fuel calculations based on the above formula. Table H shows that the off-road equipment utilized during construction of the proposed project would consume 79,907 gallons of fuel.

Table H – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horsepower	Load Factor	Operating Hours per Day	Total Operational Hours ¹	Fuel Used (gallons)
Demolition						
Concrete/Industrial Saw	1	81	0.73	8	160	543
Excavators	3	158	0.38	8	480	1,488
Rubber Tired Dozers	2	247	0.4	8	320	1,632
Oil Wells Abandonment						
Off-Highway Trucks (Concrete Mixer Truck)	3	402	0.38	8	1,056	8,359
Generator Sets	3	800	0.74	8	1,056	32,273
Grading						
Excavators	1	158	0.38	8	160	496
Graders	1	187	0.41	8	160	633
Rubber Tired Dozers	1	247	0.4	8	160	816
Tractors/Loaders/Backhoes	3	97	0.37	8	480	989
Building Construction						
Cranes	1	231	0.29	7	1,610	5,568
Forklifts	3	89	0.2	8	5,520	5,639
Generator Sets	1	84	0.74	8	1,840	6,564
Tractors/Loaders/Backhoes	3	97	0.37	7	4,830	9,949
Welders	1	46	0.45	8	1,840	2,186
Paving						
Pavers	2	130	0.42	8	320	902

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours ¹	Fuel Used (gallons)
Paving Equipment	2	132	0.36	8	320	785
Rollers	2	80	0.38	8	320	558
Architectural Coating						
Air Compressor	1	78	0.48	6	240	516
Total Off-Road Equipment Fuel Used during Construction (gallons)						79,907

Notes:

¹ Based on: 20 days for Demolition, 44 days for oil wells abandonment, 20 days for Grading; 230 days for Building Construction; 20 days for Paving; and 40 days for Architectural Coating.

Source: CalEEMod Version 2016.3.2 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles was then divided by the fleet average for all of Southern California miles per gallon rates for the year 2021 calculated through use of the EMFAC2017 model (<https://www.arb.ca.gov/emfac/2017/>) and the EMFAC2017 model printouts are shown in Appendix B. Table I shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations.

Table I – On-Road Vehicle Trips and Fuel Consumption from Construction of the Proposed Project

Vehicle Trip Types	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase ¹	Fleet Average Miles per Gallon ²	Fuel Used (gallons)
Demolition						
Worker Trips	15	14.7	221	4,410	25.3	175
Vendor Truck Trips	6	6.9	41	828	8.0	104
Haul Truck Trips	29	20	583	11,660	8.0	1,463
Oil Wells Abandonment						
Worker Trips	15	14.7	221	9,702	25.3	384
Vendor Truck Trips	8	6.9	55	2,429	8.0	305
Grading						
Worker Trips	15	14.7	221	4,410	25.3	175
Vendor Truck Trips	6	6.9	41	828	8.0	104
Building Construction						
Worker Trips	105	14.7	1,544	355,005	25.3	14,057
Vendor Truck Trips	41	6.9	283	65,067	8.0	8,165
Paving						
Worker Trips	15	14.7	221	4,410	25.3	175
Architectural Coating						
Worker Trips	21	14.7	309	12,348	25.3	489
Total Fuel Used from On-Road Construction Vehicles (gallons)						25,595

Notes:

¹ Based on: 20 days for Demolition, 44 days for oil wells abandonment, 20 days for Grading; 230 days for Building Construction; 20 days for Paving; and 40 days for Architectural Coating.

² From EMFAC 2017 model (see Appendix B). Worker Trips based on entire fleet of gasoline vehicles and Vendor Trips based on only truck fleet of diesel vehicles.

Source: CalEEMod Version 2016.3.2; CARB, 2018.

Table I shows that the on-road construction-related vehicle trips would consume 25,595 gallons of fuel and as detailed above, Table H shows that the off-road construction equipment would consume 79,907 gallons of fuel. This would result in the total consumption of 105,501 gallons of petroleum fuel from construction of the proposed project.

Operations-Related Energy Use

The operation of the proposed project is anticipated to use energy in the forms of petroleum fuel, electricity, and natural gas, and the calculations for each source are described below. Conservatively, credit is not taken for the energy use from the existing uses at the site.

Operational Petroleum Fuel

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run as detailed above in Section 8.1, which found that operation of the proposed project would generate 3,297,610 vehicle miles traveled per year from autos and small trucks and would generate 401,054 vehicle miles traveled per year from tractor-trailers. The calculated total operational miles was then divided by the Southern California fleet average rates of 26.0 miles per gallon for automobiles and small trucks and the fleet average rate of 8.2 miles per gallon for tractor-trailers, which was calculated through use of the EMFAC2017 model and based on the year 2022. The EMFAC2017 model printouts are shown in Appendix B. Based on the above calculation methodology, the operation of automobiles and small truck trips would consume 126,888 gallons per year and tractor-trailers would consume 48,760 gallons per year. The total petroleum use from operation of the proposed project would be 175,648 gallons per year.

Operational Electricity Use

The operations-related electricity usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found the proposed warehouse will use 579,600 kilowatt hours (kWh) per year and the proposed parking lot areas that include the truck loading area will use 18,620 kWh per year. Based on the above, it is anticipated that the proposed project would utilize 598,220 kWh per year of electricity.

Operational Natural Gas Use

The operations-related natural gas usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found the proposed project will use 151,564 kilo British Thermal Units (kBtu) per year, which is equivalent to 152 mega-British Thermal units (MBtu) per year of natural gas.

6.3 Toxic Air Contaminant Emissions Modeling

The dispersion modeling utilized for analyzing the TAC emissions in this analysis has been based on the recommended methodology described in *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel idling Emissions for CEQA Air Quality Analysis* (SCAQMD HRA Guidance), prepared by SCAQMD, 2003, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA Guidelines), prepared by Office of Environmental Health Hazard, February 2015, and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212* (SCAQMD Risk Assessment Procedures), prepared by SCAQMD, September 1, 2017. Important issues that affect the dispersion modeling include the following: 1) Model Selection, 2) Source Treatment, 3) Meteorological Data, and 4) Receptor Grid. Each of these issues is addressed below.

Model Selection

The AERMOD View Version 9.9.0 Model was used for all dispersion modeling. Key dispersion modeling options selected included the regulatory default options and urban modeling option for Los Angeles County with a population of 9,818,605. Flagpole receptor height was set to 0 meters, which is based on SCAQMD recommended modeling parameters. AERMAP (the terrain pre-processor for AERMOD) was run with a USGS NED 1/3 10-meter map.

Meteorological Data

Meteorological data from the SCAQMD's Hawthorne Airport monitoring site was selected for this modeling application, since this is the nearest monitoring site with meteorological data available to the project site. Five full years of sequential meteorological data were collected at the Hawthorne Station by the SCAQMD for 2012, 2013, 2014, 2015, and 2016. The SCAQMD processed the data for input to the model. An elevation of 19 meters was utilized for the Hawthorne Airport Station per SCAQMD.

Receptor Grid

The nearest sensitive receptors that may be impacted by the proposed project are multi-family homes located adjacent to the east side of the project site and single-family homes located as near as 110 feet south of the project site. There are also single and multi-family homes located as near as 1,100 feet north of the project site on the north side of 228th Street and as near as 900 feet east of the project site on the east side of Normandie Avenue. Discrete receptors were placed at 13 representative nearby homes. Figure 3 shows the locations of the sources and receptors modeled in the AERMOD model for TAC emissions.

Building Inputs

In order to account for building downwash (air turbulence caused by wind blowing over the proposed warehouse) attributes associated with the proposed project, the proposed warehouse structure was inputted into the AERMOD model as a polygonal building with a 44 foot height.

EMFAC2017 Model

The truck travel and truck idling emission rates were obtained from the EMFAC2017 model Version 1.0.7. The EMFAC2017 model is the latest emissions inventory model released by CARB that calculates motor vehicle emissions from vehicles operating on roads in California. The EMFAC2017 includes the latest data on California's car and truck fleets and travel activity and also reflects the emissions reductions associated with CARB's recent rulemaking, including on-road diesel fleet rules, Advanced Clean Car Standards, and the Smartway/Phase I Heavy-Duty Vehicle GHG Regulations.

The operational tractor-trailer truck trips were modeled in the EMFAC2017 model through use of the Truck 2 Vehicle Category that covers all truck classifications over 14,000 pounds. The operational small truck trips were modeled in the EMFAC2017 model through use of the Truck 1 Vehicle Category that covers all truck classifications between 8,500 and 14,000 pounds. Since vehicle emission factors are dependent on vehicle speed, emission factors were obtained for 10 and 35 miles per hour and idling rates. The EMFAC2017 model run printout is provided in Appendix B.

The cancer risk analysis is based on a 30-year analysis period. Therefore, the analysis period was segmented into three age sensitivity time periods, plus the construction time period, consistent with the cancer risk estimation methodology. The DPM PM10 truck running emission rates utilized in this

assessment are shown in Table J; the DPM PM10 truck idling emission rates utilized in this assessment are shown in Table K.

Table J – EMFAC2017 Diesel Truck Running PM10 Emission Rates

Vehicle Class	Speed (mph)	EMFAC2017 PM10 Running Emissions Rates (grams/mile)		
		2022 to 2023	2023 to 2038	2038 to 2051
Truck 1	10	0.0328	0.0222	0.0164
	35	0.0131	0.0100	0.0083
Truck 2	10	0.0265	0.0087	0.0077
	35	0.0148	0.0068	0.0065

Source: EMFAC2017 version 1.0.2.

Table K – EMFAC2017 Diesel Truck Idling PM10 Emission Rates

Vehicle Class	EMFAC2017 PM10 Idling Emissions Rates (grams/hour)		
	2022 to 2023	2023 to 2038	2038 to 2051
Truck 1	0.807	0.800	0.797
Truck 2	0.021	0.013	0.010

Source: EMFAC2017 version 1.0.2.

TAC Emission Sources

Operational DPM emissions would be generated from truck trips generated by the operation of the proposed project as a warehouse or last-mile delivery. As detailed in the project description, the proposed warehouse will not be utilized as a refrigerated warehouse. As such, no transport refrigeration units will operate on the project site.

As detailed above in Section 6.1, the proposed project would generate 122 daily truck trips, of which 30 would be 2-axle, 25 would be 3-axle, and 67 would be 4+-axle. . The project-related truck emissions have been analyzed separately for truck travel and truck idling that utilized emission rates from the EMFAC model.

Operational Truck Travel

The onsite diesel truck travel was modeled based on the most direct onsite route from the west project driveway to the loading area. It should be noted that the east driveway will be not be used by trucks, as such this driveway has not been analyzed. The Traffic Analysis (Gibson Transportation Consulting, Inc, 2020), found that 15 percent of the trips would travel on Sepulveda Boulevard west of the project site and 85 percent of the trips would travel on Sepulveda Boulevard east of the project site.

The emission rates utilized in the AERMOD model were calculated by converting the emissions created for one truck to grams per second and then calculating the time it takes to travel the road length and multiplying this time by the per day and then dividing by 24 hours. The calculated emission rates are shown in Table L. The diesel truck line volume source truck routes were modeled with a 6-foot height and 12-foot width for the onsite road and a 40-foot width on Sepulveda Boulevard.

Table L – AERMOD Model Operational DPM Truck Travel Emissions Sources

Source ID	Description	Daily Truck Trips ¹	Length of Truck Route (meters)	DPM Emission Rates (grams/second)		
				2022-2023	2023-2038	2038-2051
Onsite Warehouse						
	2-axle and 3-axle Truck Trips	55	94	1.22E-06	8.26E-07	6.11E-07
	4-axle Truck Trips	67	94	1.20E-06	3.92E-07	3.50E-07
RDON	Onsite West Driveway	122	--	2.42E-06	1.22E-06	9.61E-07
Offsite Roads						
	2-axle and 3-axle Truck Trips	3	458	1.19E-07	9.10E-08	7.49E-08
	4-axle Truck Trips	3	458	1.64E-07	7.55E-08	7.18E-08
RDSEPW	Sepulveda Boulevard west of Project Site	6	--	2.83E-07	1.67E-07	1.47E-07
	2-axle and 3-axle Truck Trips	52	608	3.00E-06	2.30E-06	1.89E-06
	4-axle Truck Trips	64	608	4.13E-06	1.91E-06	1.81E-06
RDSEPE	Sepulveda Boulevard east of Project Site	116	--	7.13E-06	1.68E-06	3.70E-06

Notes:

¹ Daily truck trips represent one-way trips (i.e., entering the project site or leaving the project site equal one trip).

Source: Gibson Transportation Consulting, Inc, 2020.

Onsite Truck Idling

The onsite diesel truck idling emissions were modeled as a point source located in the center of the loading area on the west side of the proposed warehouse. The analysis was based on each truck delivery idling on the project site for 15 minutes or 5 minutes for arriving to the loading area, 5 minutes for leaving the loading area, and 5 minutes for queueing activities at the loading area. The 5-minute period is based on Section 2485 of the California Code of Regulations that limits commercial truck idling to 5 minutes at any location.

The idling point source was modeled in the AERMOD model with a 12.6-foot height, a 0.1-meter diameter, a velocity of 50 meters per second, and a temperature of 366°K. The idling point source emission rates entered into the AERMOD model are shown in Table M. The idling source emissions were determined by multiplying 15 minutes by the daily truck operations and dividing it by 24 hours in order to determine the percent of daily idling time. The daily idling time was then multiplied by the EMFAC2017 emissions rates that are detailed above and were converted to grams per second.

Table M – AERMOD Model Operational DPM Truck Idling Emissions Sources

Source ID	Description	Daily Truck Deliveries ¹	DPM Emission Rates (grams/second)		
			2022-2023	2023-2038	2038-2051
	2-axle and 3-axle Truck Idling	28	6.42E-05	6.36E-05	6.34E-05
	4-axle Truck Idling	34	2.06E-06	1.23E-06	9.86E-07
IDLING	Idling Total	61	6.63E-05	6.49E-05	6.44E-05

Notes:

¹ Each daily truck delivery represent two trips (i.e., one entering the project site and one leaving the project site).

Source: EMFAC2017; Gibson Transportation Consulting, Inc, 2020.

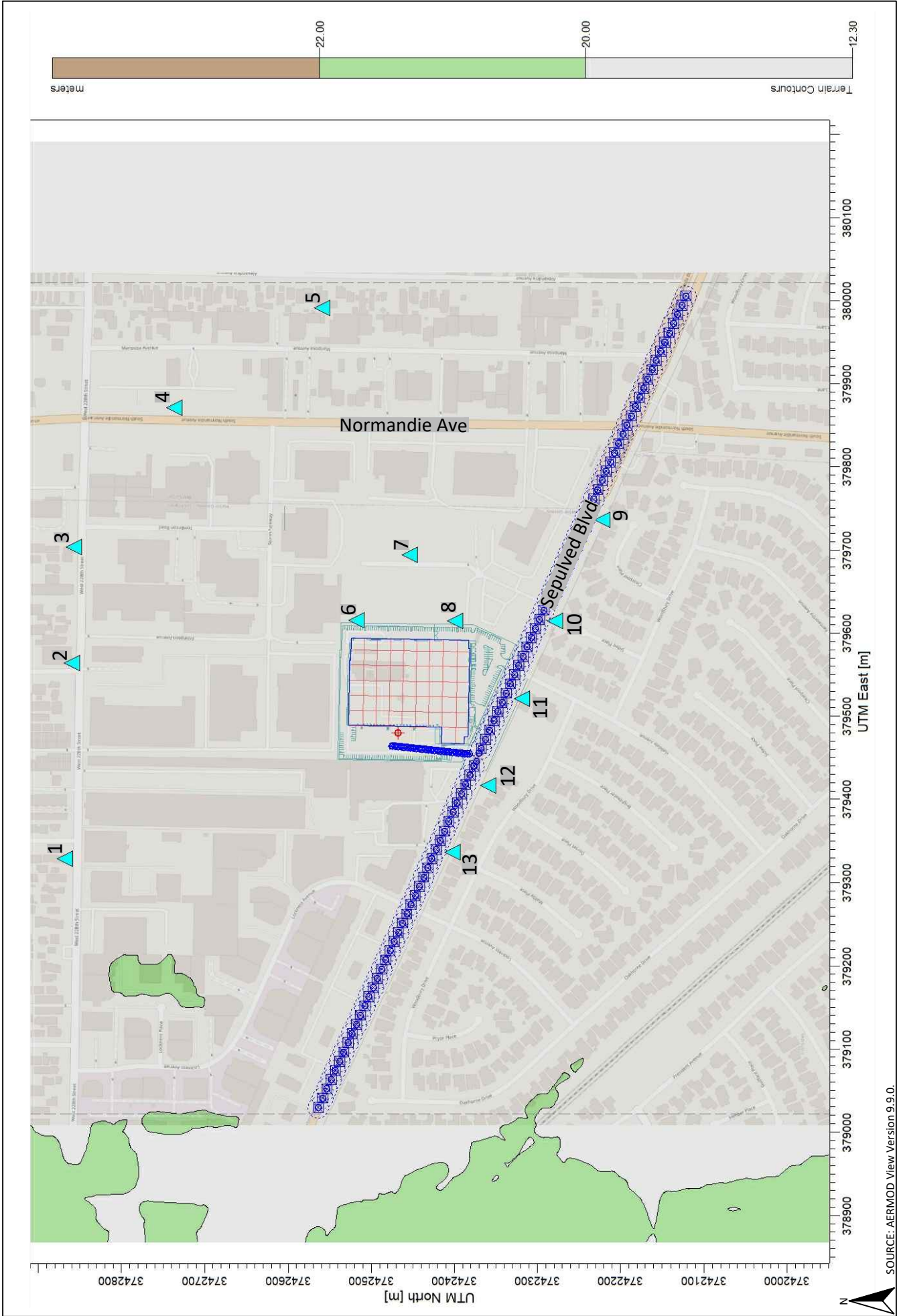


Figure 3
AERMOD Model Sources and Receptors Placement

7.0 THRESHOLDS OF SIGNIFICANCE

7.1 Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominant pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes of this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table N.

Table N – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	NOx	CO	SOx	PM10	PM2.5	Lead
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>

7.2 Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO₂, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. As detailed above in Section 7.3, the project site is located in Monitoring Area 3, which covers the Southwest Coastal LA County. The Look-Up Tables provided in the LST Methodology include project site acreage sizes of 1-acre, 2-acres and 5-acres. The Fact Sheet details the site acreage should be based on the maximum number of acres disturbed on the peak day of construction that is calculated on the construction equipment list utilized in the CalEEMod model, where crawler tractors, graders, and rubber tired dozers are all assumed to disturb 0.5-acre in an 8-hour day and scrapers are assumed to disturb 1.0-acre in an 8-hour day. It should be noted that the methodology in the Fact Sheet was developed from the CalEEMod User Guide Appendix A, page 9, where the same acres disturbed per equipment type is detailed and is utilized in the CalEEMod model in order to determine the acres per day disturbed during site preparation and grading phases. Using 1.0 acres is considered conservative, since if the 2-acre and 5-acre values were interpolated to the project's 7.4 acres, it would result in higher thresholds, when compared to the 1-acre standards utilized in this analysis.

Table O lists all of the construction equipment modeled in CalEEMod and utilizes the methodology in the Fact Sheet to calculate the acres disturbed per day. As shown in Table O, the maximum disturbed per day would occur during the demolition and grading phases when 1-acre would be disturbed. As such, the 1-acre project site shown in the Look-Up Tables has been utilized in this analysis.

Table O – Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day

Construction Activity	Equipment Type	Equipment Quantity	Acres Disturbed per piece of Equipment per Day ¹	Operating Hours per Day	Acres Disturbed per Day
Demolition	Concrete/Industrial Saw	1	0	8	0
	Excavators	3	0	8	0
	Rubber Tired Dozers	2	0.5	8	1.0
	Total Acres Disturbed per Day During Demolition				1.0
Oil Well Abandonment	Off-Highway Trucks (Concrete Mixer Trucks)	3	0	8	0
	Generator Sets	3	0	8	0
	Total Acres Disturbed per Day During Oil Well Abandonment				0
Grading	Graders	1	0.5	8	0.5
	Excavators	1	0	8	0
	Rubber Tired Dozers	1	0.5	8	0.5
	Tractors/Loaders/Backhoes	3	0	8	0
	Total Acres Disturbed per Day During Grading				1.0
Building Construction	Cranes	1	0	7	0
	Forklifts	3	0	8	0
	Generator Sets	1	0	8	0
	Tractors/Loaders/Backhoes	3	0	7	0
	Welders	1	0	8	0
	Total Acres Disturbed per Day During Building Construction				0
Paving	Pavers	2	0	8	0
	Paving Equipment	2	0	8	0
	Rollers	2	0	8	0
	Total Acres Disturbed per Day During Paving				0
Architectural Coating	Air Compressor	1	0	6	0
	Total Acres Disturbed per Day During Architectural Coating				0
Maximum Acres Disturbed during All Construction Activities					1.0

Notes:

¹ Based on the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds where crawler tractors, graders, and rubber tired dozers disturb 0.5-acre in an 8-hour day and scrapers disturb 1.0-acre in an 8-hour day. All other equipment disturb 0 acres per 8-hour day.

Source: CalEEMod Version 2016.3.2; SCAQMD, 2015.

The nearest offsite sensitive receptors include multi-family homes located adjacent to the east side of the project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table P below shows the LSTs for NO₂, PM₁₀ and PM_{2.5} for both construction and operational activities.

Table P – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Construction	91	664	5	3
Operation	91	664	1	1

Notes:

¹ The nearest offsite sensitive receptors are multi-family homes located adjacent to the east side of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 3, Southwest Coastal LA County.

7.3 Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the hazardous air pollutant (HAP) should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

The comprehensive HRA for both construction and operation of the proposed project can be found below in Section 10.4.

7.4 Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which 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 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 provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.”

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

7.5 Energy Conservation

The new 2018 amendments and additions to the CEQA Checklist now includes an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Since the Energy Section was just added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, the 2018 *Guidelines for the Implementation of the California Environmental Quality Act*, provide the following direction on how to analyze a project's energy consumption:

"If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the lead agency."

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

8.0 IMPACT ANALYSIS

8.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality and energy would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Result in 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.

8.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The following section discusses the proposed project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance discussed above in Section 7.1. However, short-term local construction air emissions would exceed the localized PM10 and PM2.5 thresholds of significance discussed above in Section 7.2 and Mitigation Measures 1 and 2 have been provided to reduce the localized PM10 and PM2.5 concentrations to less than significant levels. The ongoing operation of the proposed project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 7.1 (refer to Table R). The analysis for long-term local air quality impacts showed that local pollutant concentrations would not exceed the air quality standards (refer to Table T). Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, with implementation of Mitigation Measures 1 and 2, the proposed project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to insure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the RTP/SCS and FTIP. The RTP/SCS is a major planning document for the regional transportation and land use network within Southern California. The RTP/SCS is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the City of Los Angeles General Plan's Land Use Plan defines the long range land use assumptions that are represented in AQMP.

The project site is currently designated as Light and Heavy Manufacturing in both the General Plan and Zoning. The proposed warehouse and ancillary office are allowed uses in the Light and Heavy Manufacturing land use designations. As such, the proposed project is consistent with the current land use designation and is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, with implementation of Mitigation Measures 1 and 2, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1

The construction contractor shall:

- Water a minimum of three times daily to control dust during ground-disturbing activities,

-
- Apply chemical soil stabilizers on inactive areas (i.e., disturbed areas within the site that are unused for four consecutive days) during grading operations,
 - Suspend grading operations when wind speeds exceed 25 miles per hour,
 - At least once a day during ground-disturbing activities, operate PM10-efficient street sweepers or roadway-washing trucks on adjacent roadways to remove dirt dropped by construction vehicles or dried mud carried off by trucks moving or bringing materials, and
 - Schedule construction activities in accordance with specific SCAQMD directives.

Mitigation Measure 2:

All off-road diesel-powered equipment (non-street legal), that is greater than 50 horsepower that is used onsite during construction of the project shall meet USEPA Tier 4 off-road emission standards. If substantial evidence is provided by the permittee or its contractor that such equipment is not commercially available, including a description of commercially reasonable efforts to secure such equipment, then the permittee or its contractor shall comply with an off-road equipment plan approved by the City prior to the issuance of grading permits. The off-road equipment plan must demonstrate that the off-road equipment used on-site to construct the project would reduce construction emissions to below SCAQMD standards.

Level of Significance After Mitigation

Less than significant impact.

8.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the SCAQMD standards for various pollutants, including the following, for which the SCAB is currently in nonattainment status for federal and/or state air quality standards: Ozone, PM 10, PM2.5, VOC and NOx.

Construction Emissions

The construction activities for the proposed project are anticipated to include demolition of the existing Mulligan Family Fun Center, re-abandonment of three onsite oil wells, grading of the 7.40-acre project site, building construction of the warehouse, paving of the onsite roads, truck loading area and 190-space parking lot, and application of architectural coatings. The construction emissions have been analyzed for both regional and local air quality impacts.

Construction-Related Regional Impacts

The CalEEMod model has been utilized to calculate the construction-related regional emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 7.1. The worst-case summer or winter daily construction-related criteria pollutant emissions from the proposed project for each phase of construction activities are shown below in Table Q and the CalEEMod daily printouts are shown in Appendix A. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table Q also shows the combined regional criteria pollutant emissions from building construction (year 2022), paving and architectural coating phases of construction.

Table Q – Construction-Related Regional Criteria Pollutant Emissions Prior to Mitigation

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Demolition						
Onsite ¹	3.17	31.44	21.57	0.04	7.86	2.40
Offsite ²	0.34	8.55	2.67	0.03	0.74	0.22
Total	3.50	39.99	24.23	0.06	8.60	2.62
Oil Wells Abandonment						
Onsite	1.83	15.87	10.87	0.04	0.58	0.54
Offsite	0.10	0.82	0.81	0.00	0.22	0.06
Total	1.92	16.69	11.67	0.04	0.80	0.60
Grading						
Onsite	2.29	24.74	15.86	0.03	7.71	4.43
Offsite	0.09	0.63	0.76	0.00	0.21	0.06
Total	2.38	25.37	16.61	0.03	7.92	4.49
Building Construction (year 2021)						
Onsite	1.90	17.43	16.58	0.03	0.96	0.90
Offsite	0.63	4.31	5.27	0.02	1.45	0.40
Total	2.53	21.74	21.84	0.05	2.41	1.30
Combined Building Construction (year 2022), Paving and Architectural Coatings						
Onsite	44.14	28.14	32.76	0.05	1.46	1.36
Offsite	0.75	4.18	5.99	0.02	1.86	0.51
Total	44.90	32.32	38.74	0.07	3.31	1.88
Maximum Daily Construction Emissions	44.90	39.99	38.74	0.07	8.60	4.49
SCQAMD Thresholds	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:

¹ Onsite emissions from equipment not operated on public roads.

² Offsite emissions from vehicles operating on public roads.

Source: CalEEMod Version 2016.3.2.

Table Q shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either demolition, well abandonment, grading, or the combined building construction, paving and architectural coatings phases. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate

LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality.

Table R shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds that have been detailed above in Section 8.2. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table R shows the combined local criteria pollutant emissions from year 2022 building construction, paving and architectural coating phases of construction.

Table R – Construction-Related Local Criteria Pollutant Emissions Prior to Mitigation

Phase	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	32.51	21.90	7.95	2.42
Oil Wells Abandonment	15.97	10.97	0.61	0.54
Grading	24.81	15.95	7.74	4.44
Building Construction (year 2021)	17.97	17.23	1.14	0.95
Combined Building Construction (year 2022), Paving and Architectural Coatings	30.51	33.79	1.84	1.57
Maximum Daily Construction Emissions	30.51	33.79	7.95	4.44
SCAQMD Local Construction Thresholds¹	91	664	5	3
Exceeds Threshold?	No	No	Yes	Yes

Notes:

¹ The nearest sensitive receptors to the project site are multi-family homes located adjacent to the east side of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 3, Southwest Coastal LA County.

The data provided in Table R shows that the only exceedance of the localized thresholds would be from PM10 during both demolition and grading activities and from PM2.5 during grading activities. This would be considered a significant impact.

Mitigation Measures 1 and 2 have been included to reduce the local PM10 and PM2.5 localized emissions to less than significant levels. Mitigation Measure 1 requires that the contractor waters all disturbed areas a minimum of 3 times per day, apply chemical stabilizers on inactive areas, suspend grading activities when wind speeds exceed 25 miles per hour, utilize street sweepers at least once per day on adjacent roadways to remove any dirt dropped by construction vehicles, and to schedule construction activities in accordance with specific SCAQMD directives. Mitigation Measure 2 requires that all off-road diesel-powered equipment (non-street legal), that is greater than 50 horsepower that is used onsite during construction of the project shall meet USEPA Tier 4 off-road emission standards. If substantial evidence is provided by the permittee or its contractor that such equipment is not commercially available, including a description of commercially reasonable efforts to secure such equipment, then the permittee or its contractor shall comply with an off-road equipment plan approved by the City prior to the issuance of grading permits. The off-road equipment plan must demonstrate that the off-road equipment used to on-site to construct the project would reduce construction emissions to below SCAQMD standards.

The mitigated emissions shown in the CalEEMod model run printouts in Appendix A accounts for implementation of Mitigation Measures 1 and 2 and a summary of the CalEEMod model results are shown in Table S.

Table S – Mitigated Construction-Related Local Criteria Pollutant Emissions

Phase	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	3.07	23.61	2.99	0.52
Oil Wells Abandonment	2.22	17.97	0.09	0.07
Grading	6.85	17.60	3.34	1.86
Building Construction (year 2021)	7.82	18.13	0.57	0.42
Combined Building Construction (year 2022), Paving and Architectural Coatings	19.08	34.70	1.19	0.96
Maximum Daily Construction Emissions	19.08	34.70	3.34	1.86
SCAQMD Local Construction Thresholds¹	91	664	5	3
Exceeds Threshold?	No	No	No	No

Notes:

¹ The nearest sensitive receptors to the project site are multi-family homes located adjacent to the east side of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 3, Southwest Coastal LA County.

Table S shows that with implementation of Mitigation Measures 1 and 2, none of the analyzed criteria pollutants would exceed the local emissions thresholds during either the demolition or grading phases or the combined building construction, paving, and architectural coatings phases. Therefore with implementation of Mitigation Measures 1 and 2, a less than significant local air quality impact would occur from construction of the proposed project.

none of the analyzed criteria pollutants would exceed the local emissions thresholds during either demolition, oil well abandonment, grading, or the combined building construction, paving, and architectural coatings phases. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Operational Emissions

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from energy usage, onsite area source emissions, and off-road equipment created from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter VOC, NOx, CO, SO₂, PM10, and PM2.5 daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table T and the CalEEMod daily emissions printouts are shown in Appendix A.

Table T – Operational Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Area Sources ¹	3.93	0.00	0.04	0.00	0.00	0.00
Energy Usage ²	0.00	0.04	0.03	0.00	0.00	0.00
Mobile Sources ³	2.40	27.24	27.62	0.16	9.84	2.76
Off-Road Equipment ⁴	0.45	4.22	4.62	0.01	0.28	0.26
Total Emissions	6.78	31.50	32.30	0.17	10.12	3.02
SCQAMD Operational Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:

¹ Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

² Energy usage consist of emissions from natural gas usage.

³ Mobile sources consist of emissions from vehicles and road dust.

⁴ Off-road equipment consists of emissions from forklifts utilized inside the warehouse building which have been conservatively analyzed as CNG-powered, instead of electric-powered.

Source: Calculated from CalEEMod Version 2016.3.2.

The data provided in Table T shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

In *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (also referred to as “*Friant Ranch*”), the California Supreme Court held that when an EIR concluded that when a project would have significant impacts to air quality impacts, an EIR should “make a reasonable effort to substantively connect a project’s air quality impacts to likely health consequences.” As shown in Table T above, and unlike the project at issue in the *Friant Ranch* case, the project’s emissions of criteria pollutants would not exceed the SCAQMD’s thresholds and would not have a significant air quality impact. Therefore, it is not necessary to connect this small project’s air quality impacts to likely health impacts. However, for informational purposes this analysis considers the Court’s direction as follows:

- 1) The air quality discussion shall describe the specific health risks created from each criteria pollutant, including diesel particulate matter.

Although it has been determined that the project would not result in significant air quality impacts, this analysis details the specific health risks created from each criteria pollutant above in Section 3.1 and specifically in Table B. In addition, the specific health risks created from diesel particulate matter is detailed above in Section 2.2 of this analysis. As such, this analysis meets the part 1 requirements of the *Friant Ranch* Case.

- 2) The analysis shall identify the magnitude of the health risks created from the Project. The Ruling details how to identify the magnitude of the health risks. Specifically, on page 24 of the ruling it states “The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project’s impact on the days of nonattainment per year.”

Table T above shows that the primary source of operational air emissions would be created from mobile source emissions that would be generated throughout the Air Basin and would result in a less than

significant impact to air quality. If there were a significant impact, any adverse health impacts created from the proposed project should be assessed on a basin-wide level. As indicated above in Table B, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone, PM2.5, and partial non-attainment for lead. In addition, PM10 has been designated by the State as non-attainment. It should be noted that VOC and NOx are ozone precursors, as such they have been considered as non-attainment pollutants. According to the 2016 AQMP, in 2016 the total emissions of: VOC was 500 tons per year; NOx was 522 tons per year; SOx was 18 tons per year; and PM2.5 was 66 tons per year. Since the 2016 AQMP did not calculate total PM10 emissions, the total PM10 emissions were obtained from *The California Almanac of Emissions and Air Quality 2013 Edition*, prepared by CARB, for the year 2020. The project contribution to each criteria pollutant in the South Coast Air Basin is shown in Table U.

Table U – Project’s Daily Contribution to Criteria Pollutants in the South Coast Air Basin

Emissions Source	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Project Emissions ¹	6.78	31.50	32.30	0.17	10.12	3.02
Total Emissions in Air Basin ²	1,000,000	1,044,000	4,246,000	36,000	322,000	132,000
Project’s Percent of Air Emissions	0.0007%	0.0030%	0.0008%	0.00047%	0.0031%	0.0023%
SCQAMD Operational Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:

¹ From the project’s total operational emissions shown above in Table T.

² VOC, NOx, CO, SO₂ and PM2.5 from 2016 AQMP and PM10 from the California Almanac of Emissions and Air Quality 2013 Edition.

As shown in Table U, the project would increase daily criteria pollutant emissions by up to 0.0031 percent for PM10 in the South Coast Air Basin. Due to these nominal increases in the Air Basin-wide criteria pollutant emissions, no increases in days of non-attainment are anticipated to occur from operation of the proposed project. Accordingly, because the project results in a less than significant impact to air quality, operation of the project is not anticipated to result in a quantitative increase in premature deaths, asthma in children, days children will miss school, asthma-related emergency room visits, or an increase in acute bronchitis among children due to the criteria pollutants created by the proposed project. Impacts would be less than significant.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality

impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over eight hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the state have steadily declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles during the peak morning and afternoon periods and did not predict a violation of CO standards⁴. Since the nearby intersections to the proposed project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the proposed project and no CO Hotspot modeling was performed. Therefore, a less than significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Table N shows the onsite emissions from the CalEEMod model that includes area sources, energy usage, and vehicles operating in the immediate vicinity of the project site and the calculated emissions thresholds.

Table V – Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.00	0.04	0.00	0.00
Energy Usage	0.04	0.03	0.00	0.00
Mobile Sources ¹	0.59	0.60	0.21	0.06
Off-Road Equipment ²	4.22	4.62	0.28	0.26
Total Emissions	4.85	5.28	0.49	0.32
SCAQMD Local Operational Thresholds³	91	664	1	1
Exceeds Threshold?	No	No	No	No

Notes:

³ Mobile sources based on 2.2 percent of the gross vehicular emissions, which was calculated based on the percentage of vehicle trips occurring within a quarter mile of the project site (i.e., from CalEEMod, 52% of trips are C-W that are 16.6 miles in length [1.5% of trip within ¼ mile]; 36% of trips are C-NW that are 6.9 miles in length [3.6% of trip within ¼ mile]; and 11% of trips are truck trips that are 40 miles in length [0.6% of trip within ¼ mile]).

⁴ The four intersections analyzed by the SCAQMD were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning and LOS F in the evening peak hour.

² Off-road equipment consists of emissions from forklifts used inside the building, which have been conservatively analyzed as CNG-powered, instead of electric-powered.

³ The nearest sensitive receptors to the project site are multi-family homes located adjacent to the east side of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 3, Southwest Coastal LA County.

The data provided in Table N shows that the on-going operations of the proposed project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed above in Section 7.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to onsite emissions and no mitigation would be required.

Therefore, with implementation of Mitigation Measures 1 and 2, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measures 1 and 2 provided above in Section 8.2.

Level of Significance After Mitigation

Less than significant impact.

8.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 8.3 for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from local criteria pollutant and toxic air contaminant emissions. The nearest sensitive receptors to the project site are multi-family homes located adjacent to the project site on the east side. There are also single-family homes located as near as 110 feet south of the project site.

Construction-Related Sensitive Receptor Impacts

Construction of the proposed project may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant impacts

The local air quality impacts from construction of the proposed project has been analyzed above in Section 8.3 and found that PM₁₀ during both demolition and grading activities and from PM_{2.5} during grading activities would result in an exceedance of the localized thresholds and would result in a significant impact. Mitigation Measure 1 has been provided that requires that the contractor waters all disturbed areas a minimum of 3 times per day, apply chemical stabilizers on inactive areas, suspend grading activities when wind speeds exceed 25 miles per hour, utilize street sweepers at least once per day on adjacent roadways to remove any dirt dropped by construction vehicles, and to schedule construction activities in accordance

with specific SCAQMD directives. Mitigation Measure 2 requires that all off-road diesel-powered equipment (non-street legal), that is greater than 50 horsepower that is used onsite during construction of the project shall meet USEPA Tier 4 off-road emission standards. If substantial evidence is provided by the permittee or its contractor that such equipment is not commercially available, including a description of commercially reasonable efforts to secure such equipment, then the permittee or its contractor shall comply with an off-road equipment plan approved by the City prior to the issuance of grading permits. The off-road equipment plan must demonstrate that the off-road equipment used on-site to construct the project would reduce construction emissions to below SCAQMD standards.

The analysis provided above in Section 8.3 found that with implementation of Mitigation Measures 1 and 2, none of the analyzed criteria pollutants would exceed the local emissions thresholds during either the demolition, well abandonment or grading phases or the combined building construction, paving, and architectural coatings phases. Therefore, with implementation of Mitigation Measures 1 and 2, a less than significant local air quality impact would occur from construction of the proposed project.

Toxic Air Contaminants Impacts from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of “individual cancer risk”. “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the SCAQMD provides no guidance on how to analyze TAC impacts created from construction, as such this analysis has not quantified the cancer risk created from construction-related TAC emissions.

Given the relatively limited number of heavy-duty construction equipment and the short-term construction schedule, construction of the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet’s usage and emissions. In addition, Mitigation Measure 2 requires that all off-road diesel-powered equipment (non-street legal), that is greater than 50 horsepower that is used onsite during construction of the project shall meet USEPA Tier 4 off-road emission standards. If substantial evidence is provided by the permittee or its contractor that such equipment is not commercially available, including a description of commercially reasonable efforts to secure such equipment, then the permittee or its contractor shall comply with an off-road equipment plan approved by the City prior to the issuance of grading permits. The off-road equipment plan must demonstrate that the off-road equipment used on-site to construct the project would reduce construction emissions to below SCAQMD standards. Therefore, less than significant short-term toxic air contaminant impacts would occur during construction of the proposed project. As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The on-going operations of the proposed project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from onsite operations.

Local CO Hotspot Impacts from Project-Generated Vehicle Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential impacts to sensitive receptors. The analysis provided above in Section 8.3 shows that no local CO Hotspots are anticipated to be created at any nearby intersections from the vehicle traffic generated by the proposed project. Therefore, operation of the proposed project would result in a less than significant exposure of offsite sensitive receptors to substantial pollutant concentrations.

Local Criteria Pollutant Impacts from Onsite Operations

The local air quality impacts from the operation of the proposed project would occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided above in Section 8.3 found that the operation of the proposed project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed above in Section 7.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

The proposed project would consist of the development of a warehouse facility and related parking facilities. Operation of the proposed project would generate diesel emissions, which are known sources of TACs, from truck traffic and delivery trucks. The TAC impacts to the nearby sensitive receptors have been analyzed through use of the AERMOD model and the model input parameters detailed above in Section 6.3. Health risks from TACs are twofold. First, TACs are carcinogens according to the State of California. Second, short-term acute and long-term chronic exposure to TACs can cause health effects to the respiratory system. Each of these health risks is discussed below.

Cancer Risks

According to the OEHHA Guidance (OEHHA, 2015) and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*, (SCAQMD, 2017), the cancer risk should be calculated using the following formula:

Cancer Risk = [Dose-inh (mg/(Kg-day))] * [Cancer Potency Factor (kg-day)/mg]*[1x10⁶] * Age Sensitivity Factor * Fraction of Time at Home

$$\text{Dose-inh} = (C_{\text{air}} * \text{DBR} * A * \text{EF} * \text{ED} * 10^6) / \text{AT}$$

Where:

C_{air} [Concentration in air (µg/m³)] = (Calculated by AERMOD Model)

DBR [Daily breathing rate (L/kg body weight – day)]

A [Inhalation absorption factor]

EF [Exposure frequency (days/year)]

ED [Exposure duration (years)]

10⁶ [Micrograms to milligrams conversion]

AT [Average time period over which exposure is averaged in days]

The cancer risk parameters used in this evaluation for the nearby residential uses are shown in Table W.

Table W – Cancer Risk Calculation Parameters

Parameter	Operations		
	2022 – 2023 (3 rd Trimester to 2 years)	2023 – 2038 (2 to 16 years)	2038 – 2051 (16 to 30 years)
Cancer Potency Factor (mg/kg-day) for DPM	1.1	1.1	1.1
Daily Breathing Rate (L/kg body weight-day)	1,009 ⁽¹⁾	572	261
Inhalation Absorption Factor	1	1	1
Exposure Frequency (days/year)	350	350	350
Exposure Duration (years)	2.25	14	13.75
Age Sensitivity Factor	10	3	1
Fraction of Time at Home	1.0	1.0	1.0
Averaging Time ² (days)	25,550	25,550	25,550
Potential Cancer Risk =	$C_{air} * 342$	$C_{air} * 362$	$C_{air} * 39.5$

Notes:

¹ Based on 95th percentile breathing rate of 361 for 3rd trimester for 3 months and 1,090 for 0 to 2 years for 24 months (OEHHA, 2015; SCAQMD, 2017).

² Based on a 70-year average lifetime (OEHHA, 2015; SCAQMD, 2017)

Table X provides a summary of the calculated diesel emission concentrations at the nearest sensitive receptors and Appendices C, D, and E provide the AERMOD printouts.

Table X – TAC Cancer Risks at Nearby Sensitive Receptors

Sensitive Receptor ¹	Receptor Location		Annual PM10 Concentration (µg/m ³)			Cancer Risk Per Million People ²
	X	Y	2022-2023	2023- 2038	2038-2051	
1	379,329	3,742,868	0.0004	0.0004	0.0004	0.3
2	379,564	3,742,860	0.0004	0.0004	0.0004	0.3
3	379,704	3,742,857	0.0004	0.0004	0.0004	0.3
4	379,871	3,742,736	0.0007	0.0006	0.0006	0.5
5	379,991	3,742,559	0.0008	0.0008	0.0008	0.6
6	379,616	3,742,518	0.0049	0.0048	0.0047	3.6
7	379,695	3,742,454	0.0030	0.0029	0.0029	2.2
8	379,615	3,742,399	0.0032	0.0030	0.0029	2.3
9	379,737	3,742,222	0.0019	0.0015	0.0014	1.3
10	379,615	3,742,279	0.0027	0.0022	0.0021	1.8
11	379,521	3,742,319	0.0041	0.0035	0.0034	2.8
12	379,417	3,742,359	0.0031	0.0029	0.0028	2.2
13	379,337	3,742,402	0.0021	0.0020	0.0020	1.5
Threshold of Significance						10
Exceed Threshold?						No

Notes:

¹ The locations of each Sensitive Receptor are shown above in Figure 3.

² The residential cancer risk based on: $C_{air} (2022-2023) * 342 + C_{air} (2023-2038) * 362 + C_{air} (2038-2051) * 39.5$.

Source: Calculated from ISC-AERMOD View Version 9.9.0.

Table X shows that the cancer risk from the proposed project's TAC emissions would be as high as 3.6 per million persons at the multi-family homes located on the east side of the project site (Sensitive Receptor 6). The project-related cancer risk from TAC emissions would be within the SCAQMD's threshold of 10 per million persons. Therefore, operation of the proposed project would result in a less than significant impact due to the cancer risk from TAC emissions.

Non-Cancer Risks

In addition to the cancer risk from exposure to TAC emissions there is also the potential TAC exposure may result in adverse health impacts from acute and chronic illnesses, which are detailed below.

Chronic Health Impacts

Chronic health effects are characterized by prolonged or repeated exposure to a TAC over many days, months, or years. Symptoms from chronic health impacts may not be immediately apparent and are often irreversible. The chronic hazard index is based on the most impacted sensitive receptor from the proposed project and is calculated from the annual average concentrations of PM₁₀. The relationship for non-cancer chronic health effects is given by the equation:

$$HI_{DPM} = C_{DPM} / REL_{DPM}$$

Where,

- HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.
 C_{DPM} = Annual average diesel particulate matter concentration in $\mu\text{g}/\text{m}^3$.
 REL_{DPM} = Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The REL_{DPM} is 5 $\mu\text{g}/\text{m}^3$. The Office of Environmental Health Hazard Assessment has established this concentration as protective for the respiratory system. As shown above in Table X, the AERMOD model found that the highest annual off-site concentration is 0.0049 $\mu\text{g}/\text{m}^3$ for DPM chronic non-cancer risk emissions. The resulting Hazard Index is:

$$HI_{DPM} = 0.0049 / 5 = 0.00098$$

The criterion for significance is a Chronic Hazard Index increase of 1.0 or greater, which is detailed above in Section 8.3. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer chronic health risk from TAC emissions created by the proposed project.

Acute Health Impacts

Acute health effects are characterized by sudden and severe exposure and rapid absorption of a TAC. Normally, a single large exposure is involved. Acute health effects are often treatable and reversible. The acute hazard index is calculated from the maximum 24-hour concentrations of PM₁₀ at the point of maximum impact (PMI), which has been calculated with the AERMOD model and the parameters detailed above in Section 6.3. The relationship for non-cancer acute health effects is given by the equation:

$$AHI = C / AREL$$

Where,

- AHI = Acute Hazard Index; an expression of the potential for non-cancer health effects.
C = Maximum hourly concentration of either PM₁₀ in $\mu\text{g}/\text{m}^3$.

AREL = Acute Reference Exposure Level.

No acute risk has been found to be directly created from DPM, so there is no AREL assigned to DPM, however in order to provide an DPM equivalent AREL, the ARELs from all of the other TACs that are emitted in diesel exhaust were added together based on their diesel weighting shown above in Table A. This resulted in a diesel emission weighted equivalent AREL of 2,189 $\mu\text{g}/\text{m}^3$. The AERMOD model found that the highest 24-hour concentration at the PMI is 0.01289 $\mu\text{g}/\text{m}^3$ for DPM equivalent acute non-cancer risk emissions and Appendix C provides the 24-hour concentrations during construction, which was found to create the highest 24-hour DPM concentrations in the AERMOD model. The resulting Hazard Index is:

$$\text{AHI} = 0.01289 / 2,189 = 0.000006$$

The criterion for significance is an Acute Hazard Index increase of 1.0 or greater, which is detailed above in Section 8.3. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer acute health risk from TAC emissions created by the proposed project.

The on-going operations of the proposed Therefore, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measures 1 and 2 provided above in Section 8.2.

Level of Significance After Mitigation

Less than significant impact.

8.5 Odor Emissions

The proposed project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population.

The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

The proposed project would consist of the development of a warehouse facility. There would be no atmospheric emissions or any odors released from activities inside the warehouse. Potential exterior sources that could potentially emit odors during the on-going operations of the proposed project would consist of odor emissions from the trash storage area and from operation of diesel equipment. Pursuant to City regulations, permanent trash enclosures with covers that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Diesel truck emissions odors would be generated intermittently from truck loading and unloading activities at the project site and would not likely be noticeable for extended periods of time beyond the project site boundaries. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402, no significant impact related to odors would occur during the on-going operations of the proposed project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact.

8.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Conservatively, credit is not taken for the energy usage from the existing uses at the site. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made 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. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines

is typically responsive to market demands. In 2018, Los Angeles Department of Water and Power, which provides electricity to the project vicinity provided 22,078 Gigawatt-hours per year of electricity⁵. LADWP's electricity supply is obtained through several types of energy resources including 32 percent from renewable resources, 18 percent from coal, 30 percent from natural gas, 3 percent from large hydroelectric sources, 10 percent from nuclear power, and 6 percent from unspecified power sources.⁶

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2019, Los Angeles County consumed 3,048.32 Million Therms of natural gas⁷.

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 3,659 million gallons of gasoline and 300 million gallons of diesel was sold in Los Angeles County⁸.

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The construction activities for the proposed project are anticipated to include demolition of the structures and pavement onsite, site preparation and grading of the 35.8-acre project site, building construction of the self-storage structures, caretaker residence and office, paving of the RV parking spaces, onsite driveways and adjacent road improvements, and application of architectural coatings. The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, as well as delivery and haul truck trips (e.g. hauling of demolition material to off-site reuse and disposal facilities);
2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,

5 Obtained from: <http://www.ecdms.energy.ca.gov/elecbyutil.aspx>

6 LADWP, 2018 Power Content Label, <https://www.ladwp.com/powercontent>. Accessed October 15, 2020.

7 Obtained from: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>

8 Obtained from: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/

-
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the new structures and infrastructure. Electricity would be supplied to the project site by Los Angeles Department of Water and Power (LADWP) and would be obtained from the existing electrical lines in the vicinity of the project site and possibly from diesel or gasoline powered generators, or from battery packs, depending on the size and application of the tools or machinery involved. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since the project site is currently developed, it is anticipated that only nominal improvements would be required to LADWP distribution lines and equipment with development of the proposed project. Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Natural Gas

Natural gas would not be required for any construction activities; therefore, there would be no construction-related impacts involving natural gas services.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that the off-road equipment utilized during construction of the proposed project would consume 79,907 gallons of fuel. The on-road construction trips fuel usage was calculated through use of the construction vehicle trip assumptions and fuel use assumptions shown above in Section 8.2, which found that the on-road trips generated from construction of the proposed project would consume 25,595 gallons of fuel. As such, the combined fuel used from off-road construction equipment and on-road construction trips for the proposed project would result in the consumption of 105,501 gallons of petroleum fuel. This equates to 0.0027 percent of the gasoline and diesel consumed annually in Los Angeles County. As such, the

construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. To be cost efficient, operators of machinery and vehicles would use that equipment only as needed and would use the most efficient routes to and from the project site, to minimize fuel consumption. The project would rely on common construction machinery and vehicles that would have typical levels of energy efficiency for that type of machinery; nothing is proposed that would require uncommon machinery that is less energy efficient.

As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. The proposed project would consume electrical energy for interior and exterior lighting, heating and cooling systems, a variety of electrical appliances and office machinery, electrical vehicle charging infrastructure, and for outdoor irrigation system controls. As detailed above in Section 8.3 the proposed project would consume 598,220 kilowatt-hours per year of electricity. This equates to 0.0027 percent of the electricity consumed annually by LADWP. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the LADWP service area.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards*. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation, use of energy efficient lighting and appliances, water and space heating systems, as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structure. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, the project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As detailed above in Section 8.3 the proposed project would consume 152 MBTU per year of natural gas. This equates to 0.00005 percent of the natural gas consumed annually in Los Angeles County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards*. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As detailed above in Section 8.2 the proposed project would consume 175,648 gallons of petroleum fuel per year from vehicle travel. This equates to 0.0044 percent of the gasoline and diesel consumed annually in Los Angeles County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and County related to Air Quality, Greenhouse Gas Emissions (GHG), Transportation/Circulation, and Water Supply. Additionally, the proposed project would be constructed in accordance with all applicable City Building and Fire Codes. 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.

Level of Significance

Less than significant impact.

8.7 Energy Plan Consistency

The applicable energy plans for the proposed project include Green LA, adopted May 2007; Climate LA, approved 2008; City pLAN, adopted in 2015; and LADWP's 2017 Power Strategic Long-Term Resource Plan (SLTRP). All of these plans have city-wide strategies that promote energy conservation in new development projects. The proposed project would be required to adhere to all of the applicable energy conservation regulations that have been implemented as a result of the above plans.

Major objectives for enhancing energy efficiency and expanding the supply of renewable energy resources to LADWP customers that are identified in the SLTRP include:

- 33 percent renewable portfolio standard (RPS) by 2020, 50 percent RPS by 2025, 55 percent RPS by 2030, and 65 percent RPS by 2036;
- 900 megawatts (MW) local solar by 2025 and 1,500 MW local solar by 2035;
- Doubling of energy efficiency from 2017 through 2027;
- Early replacement of electricity derived through coal-powered plants;
- 404 MW of energy storage by 2025;
- Fuel switching/electrification of the transportation sector;
- Replace aging infrastructure components.

Climate LA targets an increase in the use of renewable energy to 35 percent by 2020, reduction in the use of coal-fired power plants and present a comprehensive set of green building policies to guide and support private sector development. These measures include use of LED lighting, increased use of renewable energy, and increased solid waste diversion.

LA's Green New Deal, the City's first update to the City pLAn, was adopted in 2019. It is a program of actions meant to create sustainability-based performance targets through 2050 that are designed to advance economic, environmental, and equity objectives. One of the key aspects to LA's Green New Deal is climate mitigation, which has co-benefits with respect to energy conservation and expanded use of clean and renewable energy sources, as follows:

- Reduce GHG emissions through near-term outcomes;
- Reduce potable water use by 22.5 percent by 2025, 25 percent by 2035, and maintain or further reduce 2035 per capita water use through 2050;
- Reduce building energy use per square feet for all building types by 22 percent by 2025, 34 percent by 2035, and 44 percent by 2050;
- All new buildings will be net zero carbon by 2030 and 100 percent of all buildings will be net zero carbon by 2050;
- Increase landfill diversion rate to 90 percent by 2025, 95 percent by 2035, and 100 percent by 2050;
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030;
- Eliminate organic waste going to landfill by 2028.

Through mandatory compliance with the L.A. Green Building Code (L.A.M.C. Chapter IX, Article 9), amended in 2019 through Ordinance No. 186,488, the Project will achieve the City's objectives for building energy efficiency.

Compliance with the City's Green Building Code standards includes compliance with the 2019 update of the California Code of Regulations Title 24 Part 6, also known as the Building Energy Efficiency Standards. These standards are designed to achieve a 30 percent reduction in building energy usage, compared to construction designed in accordance with the 2016 Standards, due mainly to increases in lighting

efficiency.⁹ The 2019 Standards also encourage use of battery storage, heat pump water heaters, require more widespread use of LED lighting, improvements to the building's thermal envelope through high performance attics, walls, and windows, and improvements to building ventilation systems.

Proposed project features that would enhance energy efficiency and use of renewable energy sources include:

- 19 car parking spaces with electric vehicle (EV) chargers;
- 57 car parking spaces will be EV-ready;
- All truck parking and truck loading docks will be EV-ready; and
- Designated bicycle parking areas, including 19 long-term spaces within the building and 19 outdoor spaces for short-term use

The project's compliance with the L.A. Green Building Code would be ensured through the submittal of detailed plans to the Los Angeles Department of Building and Safety, who will ensure that all energy efficiency standards are met. Building permits will not be issued and occupancy will not be allowed, unless satisfactory demonstration of compliance with these standards is provided. Adherence to the City's energy efficiency standards, as noted above, ensures that the Proposed Project would not conflict with or obstruct a plan for renewable energy resources or energy efficiency.

Level of Significance

Less than significant impact.

9 California Energy Commission. 2018. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. <https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first>

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APPENDIX A

CalEEMod Model Daily Printouts

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Bridge Point South Bay VII - 1355 W Sepulveda Blvd
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	174.21	1000sqft	5.69	174,211.00	0
Parking Lot	190.00	Space	1.71	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				

CO2 Intensity (lb/MW/hr)	1227.89	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Total Project Area = 7.4 acres

Construction Phase - Construction schedule provided by applicant

Trips and VMT - 6 vendor trucks added to Demo and Grading to account for Water truck emissions

Demolition - Demolition: 13,700 sq ft of Building Space = 630 tons + 217,800 sq ft of pavement = 5,263 tons = total 5,894 tons of debris

Vehicle Trips - 1,095 Daily Trips from TIA. Parking Lot = 122 Daily Truck trips = 0.64 Trips/Day/Space & 40 mile length. Warehouse = 973 Daily Trips = 5.59 Trips/TSF

Construction Off-road Equipment Mitigation - Water 2x per day selected to account for SCAQMD Rule 403 min requirements. Per PDF 1 all equipment greater than 50 hp set to Tier 4 Final.

Mobile Land Use Mitigation - Increase Transit Accessibility 0.01 mile to bus stop and Improve Ped Networ on Project Site and Connecting Offsite

Energy Mitigation - 30% lighting reduction selected

Water Mitigation - Install low-flow fixtures and water-efficient Irrigation per Title 24 Part 11 requirements

Waste Mitigation - 50% reduction in solid waste selected to account for AB 341

Operational Off-Road Equipment - Long-Term Operations - 4 forklifts 8 hours per day (CNG Fuel)

Fleet Mix - Parking Lot = .247 LHD2, 0.206 MHD and .547 HHD. Warehouse set to non-trucks only

Off-road Equipment - Well Abandonment: 3 Off-Hwy Trucks (Concrete Trucks) and 3 Generator Sets

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

tblFleetMix	LHD2	6.1960e-003	0.00
tblFleetMix	MCY	5.1420e-003	0.00
tblFleetMix	MCY	5.1420e-003	6.0000e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.7600e-004	0.00
tblFleetMix	MH	8.7600e-004	0.00
tblFleetMix	MHD	0.02	0.21
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5150e-003	0.00
tblFleetMix	OBUS	2.5150e-003	0.00
tblFleetMix	SBUS	6.8700e-004	0.00
tblFleetMix	SBUS	6.8700e-004	0.00
tblFleetMix	UBUS	2.2010e-003	0.00
tblFleetMix	UBUS	2.2010e-003	0.00
tblLandUse	LandUseSquareFeet	174,210.00	174,211.00
tblLandUse	LotAcreage	4.00	5.69
tblOffRoadEquipment	HorsePower	84.00	800.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblVehicleTrips	CC_TL	8.40	40.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.64
tblVehicleTrips	ST_TR	1.68	5.59
tblVehicleTrips	SU_TR	0.00	0.64
tblVehicleTrips	SU_TR	1.68	5.59
tblVehicleTrips	WD_TR	0.00	0.64
tblVehicleTrips	WD_TR	1.68	5.59

2.0 Emissions Summary

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.4907	39.8867	24.1549	0.0648	7.0221	1.5779	8.6000	3.4230	1.4664	4.4925	0.0000	6,551.079 7	6,551.079 7	1.2647	0.0000	6,582.007 0
2022	44.8226	32.3098	38.9817	0.0787	1.8385	1.4781	3.3166	0.4936	1.3835	1.8771	0.0000	7,709.818 4	7,709.818 4	1.4511	0.0000	7,746.097 0
Maximum	44.8226	39.8867	38.9817	0.0787	7.0221	1.5779	8.6000	3.4230	1.4664	4.4925	0.0000	7,709.818 4	7,709.818 4	1.4511	0.0000	7,746.097 0

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.5533	11.5741	25.8697	0.0648	3.5536	0.4097	3.6418	1.5709	0.3851	1.9150	0.0000	6,551.079 7	6,551.079 7	1.2647	0.0000	6,582.007 0
2022	43.0126	12.1651	42.7382	0.0787	1.8385	0.3858	2.2244	0.4936	0.3656	0.8592	0.0000	7,709.818 4	7,709.818 4	1.4511	0.0000	7,746.097 0
Maximum	43.0126	12.1651	42.7382	0.0787	3.5536	0.4097	3.6418	1.5709	0.3851	1.9150	0.0000	7,709.818 4	7,709.818 4	1.4511	0.0000	7,746.097 0

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.76	67.12	-8.67	0.00	39.14	73.97	50.77	47.29	73.66	56.45	0.00	0.00	0.00	0.00	0.00	0.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

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	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Energy	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Mobile	2.8877	33.4748	35.9526	0.2180	13.0651	0.1897	13.2547	3.5398	0.1792	3.7190		22,738.6280	22,738.6280	0.9440		22,762.2285
Offroad	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	7.2745	37.7355	40.6390	0.2243	13.0651	0.4724	13.5375	3.5398	0.4396	3.9794		23,379.6831	23,379.6831	1.1367	9.0000e-004	23,408.3668

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Energy	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Mobile	2.4020	26.5848	27.6215	0.1639	9.6983	0.1426	9.8409	2.6276	0.1347	2.7623		17,105.7888	17,105.7888	0.7301		17,124.0418
Offroad	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	6.7889	30.8455	32.3079	0.1703	9.6983	0.4253	10.1237	2.6276	0.3951	3.0227		17,746.8439	17,746.8439	0.9228	9.0000e-004	17,770.1801

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.68	18.26	20.50	24.09	25.77	9.97	25.22	25.77	10.13	24.04	0.00	24.09	24.09	18.82	0.00	24.09

3.0 Construction Detail**Construction Phase**

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/20/2021	5/17/2021	5	20	
2	Grading	Grading	7/18/2021	8/13/2021	5	20	
3	Building Construction	Building Construction	8/14/2021	7/1/2022	5	230	
4	Architectural Coating	Architectural Coating	5/8/2022	7/1/2022	5	40	
5	Paving	Paving	6/5/2022	7/1/2022	5	20	
6	Abandonment of Oil Wells	Trenching	5/18/2021	7/17/2021	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 261,317; Non-Residential Outdoor: 87,106; Striped Parking Area: 4,560 (Architectural Coating – sqft)

OffRoad Equipment

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
Abandonment of Oil Wells	Off-Highway Trucks	3	8.00	402	0.38
Abandonment of Oil Wells	Generator Sets	3	8.00	800	0.74

Trips and VMT

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	583.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	105.00	41.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Abandonment of Oil Wells	6	15.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					6.3063	0.0000	6.3063	0.9548	0.0000	0.9548			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513	1.4411	1.4411	1.4411		3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄
Total	3.1651	31.4407	21.5650	0.0388	6.3063	1.5513	7.8576	0.9548	1.4411	2.3959		3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.2431	7.8193	1.8334	0.0227	0.5097	0.0240	0.5337	0.1397	0.0230	0.1627		2,467.390 ₉	2,467.390 ₉	0.1675		2,471.577 ₀
Vendor	0.0182	0.5825	0.1523	1.5400e-003	0.0384	1.1900e-003	0.0396	0.0111	1.1400e-003	0.0122		164.9284	164.9284	9.7200e-003		165.1713
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.3256	8.4460	2.5899	0.0260	0.7158	0.0265	0.7423	0.1953	0.0254	0.2206		2,803.134₇	2,803.134₇	0.1822		2,807.689₆

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.8378	0.0000	2.8378	0.4297	0.0000	0.4297			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄
Total	0.4623	2.0032	23.2798	0.0388	2.8378	0.0616	2.8995	0.4297	0.0616	0.4913	0.0000	3,747.944₉	3,747.944₉	1.0549		3,774.317₄

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**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	0.2431	7.8193	1.8334	0.0227	0.5097	0.0240	0.5337	0.1397	0.0230	0.1627		2,467.390 ₉	2,467.390 ₉	0.1675		2,471.577 ₀
Vendor	0.0182	0.5825	0.1523	1.5400e-003	0.0384	1.1900e-003	0.0396	0.0111	1.1400e-003	0.0122		164.9284	164.9284	9.7200e-003		165.1713
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.3256	8.4460	2.5899	0.0260	0.7158	0.0265	0.7423	0.1953	0.0254	0.2206		2,803.134 ₇	2,803.134 ₇	0.1822		2,807.689 ₆

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599	1.0671	1.0671	1.0671		2,871.928 ₅	2,871.928 ₅	0.9288		2,895.149 ₅
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 ₅	2,871.928 ₅	0.9288		2,895.149 ₅

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0182	0.5825	0.1523	1.5400e-003	0.0384	1.1900e-003	0.0396	0.0111	1.1400e-003	0.0122		164.9284	164.9284	9.7200e-003		165.1713
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.0825	0.6267	0.7565	3.2500e-003	0.2061	2.5400e-003	0.2086	0.0555	2.3900e-003	0.0579		335.7439	335.7439	0.0148		336.1126

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	0.8110	6.7674	17.5072	0.0296		0.3686	0.3686	0.3417	0.3417	0.3417	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	0.8110	6.7674	17.5072	0.0296	2.9486	0.3686	3.3171	1.5154	0.3417	1.8571	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0182	0.5825	0.1523	1.5400e-003	0.0384	1.1900e-003	0.0396	0.0111	1.1400e-003	0.0122		164.9284	164.9284	9.7200e-003		165.1713
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.0825	0.6267	0.7565	3.2500e-003	0.2061	2.5400e-003	0.2086	0.0555	2.3900e-003	0.0579		335.7439	335.7439	0.0148		336.1126

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1246	3.9807	1.0407	0.0105	0.2625	8.1400e-003	0.2706	0.0756	7.7800e-003	0.0834		1.127.010 6	1.127.010 6	0.0664		1.128.670 5
Worker	0.4501	0.3094	4.2291	0.0120	1.1737	9.4800e-003	1.1831	0.3113	8.7400e-003	0.3200		1.195.708 4	1.195.708 4	0.0352		1.196.589 1
Total	0.5747	4.2900	5.2698	0.0225	1.4361	0.0176	1.4538	0.3868	0.0165	0.4034		2,322.718 9	2,322.718 9	0.1016		2,325.259 6

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	0.9786	7.2841	17.4674	0.0269		0.3921	0.3921		0.3686	0.3686	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	0.9786	7.2841	17.4674	0.0269		0.3921	0.3921		0.3686	0.3686	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1246	3.9807	1.0407	0.0105	0.2625	8.1400e-003	0.2706	0.0756	7.7800e-003	0.0834		1.127.010 6	1.127.010 6	0.0664		1.128.670 5
Worker	0.4501	0.3094	4.2291	0.0120	1.1737	9.4800e-003	1.1831	0.3113	8.7400e-003	0.3200		1.195.708 4	1.195.708 4	0.0352		1.196.589 1
Total	0.5747	4.2900	5.2698	0.0225	1.4361	0.0176	1.4538	0.3868	0.0165	0.4034		2,322.718 9	2,322.718 9	0.1016		2,325.259 6

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1170	3.7855	0.9846	0.0104	0.2625	7.1200e-003	0.2696	0.0756	6.8100e-003	0.0824		1.117.192 1	1.117.192 1	0.0641		1.118.794 9
Worker	0.4216	0.2795	3.9018	0.0116	1.1737	9.1900e-003	1.1828	0.3113	8.4600e-003	0.3197		1.153.647 9	1.153.647 9	0.0318		1.154.444 0
Total	0.5386	4.0650	4.8864	0.0220	1.4361	0.0163	1.4525	0.3868	0.0153	0.4021		2,270.840 1	2,270.840 1	0.0960		2,273.238 9

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	0.8934	6.6602	17.3859	0.0269		0.3250	0.3250		0.3061	0.3061	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	0.8934	6.6602	17.3859	0.0269		0.3250	0.3250		0.3061	0.3061	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1170	3.7855	0.9846	0.0104	0.2625	7.1200e-003	0.2696	0.0756	6.8100e-003	0.0824		1.117.192 1	1.117.192 1	0.0641		1.118.794 9
Worker	0.4216	0.2795	3.9018	0.0116	1.1737	9.1900e-003	1.1828	0.3113	8.4600e-003	0.3197		1.153.647 9	1.153.647 9	0.0318		1.154.444 0
Total	0.5386	4.0650	4.8864	0.0220	1.4361	0.0163	1.4525	0.3868	0.0153	0.4021		2,270.840 1	2,270.840 1	0.0960		2,273.238 9

3.5 Architectural Coating - 2022**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	40.9019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	41.1065	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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3.5 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0843	0.0559	0.7804	2.3200e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		230.7296	230.7296	6.3700e-003		230.8888
Total	0.0843	0.0559	0.7804	2.3200e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		230.7296	230.7296	6.3700e-003		230.8888

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	40.9019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	40.9316	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

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3.5 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0843	0.0559	0.7804	2.3200e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		230.7296	230.7296	6.3700e-003		230.8888
Total	0.0843	0.0559	0.7804	2.3200e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		230.7296	230.7296	6.3700e-003		230.8888

3.6 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 ₃	2,207.660 ₃	0.7140		2,225.510 ₄
Paving	0.2240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3268	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660₃	2,207.660₃	0.7140		2,225.510₄

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3.6 Paving - 2022**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660 ₃	2,207.660 ₃	0.7140		2,225.510 ₄
Paving	0.2240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5045	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660₃	2,207.660₃	0.7140		2,225.510₄

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3.6 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206

3.7 Abandonment of Oil Wells - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8268	15.8691	10.8671	0.0398		0.5821	0.5821		0.5355	0.5355		3,854.7468	3,854.7468	1.2467		3,885,9144
Total	1.8268	15.8691	10.8671	0.0398		0.5821	0.5821		0.5355	0.5355		3,854.7468	3,854.7468	1.2467		3,885,9144

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3.7 Abandonment of Oil Wells - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.7767	0.2031	2.0600e-003	0.0512	1.5900e-003	0.0528	0.0148	1.5200e-003	0.0163		219.9045	219.9045	0.0130		220.2284
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.0886	0.8209	0.8072	3.7700e-003	0.2189	2.9400e-003	0.2218	0.0592	2.7700e-003	0.0620		390.7200	390.7200	0.0180		391.1697

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	0.4874	2.1120	17.8708	0.0398		0.0650	0.0650		0.0650	0.0650	0.0000	3,854.7468	3,854.7468	1.2467		3,885.9144
Total	0.4874	2.1120	17.8708	0.0398		0.0650	0.0650		0.0650	0.0650	0.0000	3,854.7468	3,854.7468	1.2467		3,885.9144

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3.7 Abandonment of Oil Wells - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.7767	0.2031	2.0600e-003	0.0512	1.5900e-003	0.0528	0.0148	1.5200e-003	0.0163		219.9045	219.9045	0.0130		220.2284
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.0886	0.8209	0.8072	3.7700e-003	0.2189	2.9400e-003	0.2218	0.0592	2.7700e-003	0.0620		390.7200	390.7200	0.0180		391.1697

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Improve Pedestrian Network

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	2.4020	26.5848	27.6215	0.1639	9.6983	0.1426	9.8409	2.6276	0.1347	2.7623	17,105.78	88	17,105.78	0.7301		17,124.04
Unmitigated	2.8877	33.4748	35.9526	0.2180	13.0651	0.1897	13.2547	3.5398	0.1792	3.7190	22,738.62	80	22,738.62	0.9440		22,762.22
																85

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated		
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT		
Parking Lot	121.60	121.60	121.60	1,770,496		1,314,258		
Unrefrigerated Warehouse-No Rail	973.83	973.83	973.83	4,173,576		3,098,091		
Total	1,095.43	1,095.43	1,095.43	5,944,072		4,412,349		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Parking Lot	16.60	40.00	6.90	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.247000	0.206000	0.547000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.683000	0.056000	0.255000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.006000	0.000000	0.000000

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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					
Natural Gas Mitigated	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Natural Gas Unmitigated	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

Land Use	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
	kBTU/yr																
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	415.243	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Total		4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424

Mitigated

Land Use	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
	kBTU/yr																
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.415243	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Total		4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424

6.0 Area Detail**6.1 Mitigation Measures Area**

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Unmitigated	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

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	0.4482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Total	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Total	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet
 Install Low Flow Kitchen Faucet
 Install Low Flow Toilet
 Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

9.0 Operational Offroad

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Summer

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	4	8.00	260	89	0.20	CNG

UnMitigated/Mitigated

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Forklifts	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109

10.0 Stationary EquipmentFire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Bridge Point South Bay VII - 1355 W Sepulveda Blvd
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	174.21	1000sqft	5.69	174,211.00	0
Parking Lot	190.00	Space	1.71	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2022
Utility Company	Los Angeles Department of Water & Power				

CO2 Intensity (lb/MW/hr)	1227.89	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Total Project Area = 7.4 acres

Construction Phase - Construction schedule provided by applicant

Trips and VMT - 6 vendor trucks added to Demo and Grading to account for Water truck emissions

Demolition - Demolition: 13,700 sq ft of Building Space = 630 tons + 217,800 sq ft of pavement = 5,263 tons = total 5,894 tons of debris

Vehicle Trips - 1,095 Daily Trips from TIA. Parking Lot = 122 Daily Truck trips = 0.64 Trips/Day/Space & 40 mile length. Warehouse = 973 Daily Trips = 5.59 Trips/TSF

Construction Off-road Equipment Mitigation - Water 2x per day selected to account for SCAQMD Rule 403 min requirements. Per PDF 1 all equipment greater than 50 hp set to Tier 4 Final.

Mobile Land Use Mitigation - Increase Transit Accessibility 0.01 mile to bus stop and Improve Ped Networ on Project Site and Connecting Offsite

Energy Mitigation - 30% lighting reduction selected

Water Mitigation - Install low-flow fixtures and water-efficient Irrigation per Title 24 Part 11 requirements

Waste Mitigation - 50% reduction in solid waste selected to account for AB 341

Operational Off-Road Equipment - Long-Term Operations - 4 forklifts 8 hours per day (CNG Fuel)

Fleet Mix - Parking Lot = .247 LHD2, 0.206 MHD and .547 HHD. Warehouse set to non-trucks only

Off-road Equipment - Well Abandonment: 3 Off-Hwy Trucks (Concrete Trucks) and 3 Generator Sets

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

tblFleetMix	LHD2	6.1960e-003	0.00
tblFleetMix	MCY	5.1420e-003	0.00
tblFleetMix	MCY	5.1420e-003	6.0000e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.7600e-004	0.00
tblFleetMix	MH	8.7600e-004	0.00
tblFleetMix	MHD	0.02	0.21
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.5150e-003	0.00
tblFleetMix	OBUS	2.5150e-003	0.00
tblFleetMix	SBUS	6.8700e-004	0.00
tblFleetMix	SBUS	6.8700e-004	0.00
tblFleetMix	UBUS	2.2010e-003	0.00
tblFleetMix	UBUS	2.2010e-003	0.00
tblLandUse	LandUseSquareFeet	174,210.00	174,211.00
tblLandUse	LotAcreage	4.00	5.69
tblOffRoadEquipment	HorsePower	84.00	800.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblVehicleTrips	CC_TL	8.40	40.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.64
tblVehicleTrips	ST_TR	1.68	5.59
tblVehicleTrips	SU_TR	0.00	0.64
tblVehicleTrips	SU_TR	1.68	5.59
tblVehicleTrips	WD_TR	0.00	0.64
tblVehicleTrips	WD_TR	1.68	5.59

2.0 Emissions Summary

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.5047	39.9860	24.2300	0.0643	7.0221	1.5783	8.6004	3.4230	1.4668	4.4926	0.0000	6,493.837 ₇	6,493.837 ₇	1.2652	0.0000	6,524.921 ₀
2022	44.8938	32.3396	38.6295	0.0775	1.8385	1.4783	3.3169	0.4936	1.3837	1.8773	0.0000	7,588.563 ₀	7,588.563 ₀	1.4527	0.0000	7,624.880 ₈
Maximum	44.8938	39.9860	38.6295	0.0775	7.0221	1.5783	8.6004	3.4230	1.4668	4.4926	0.0000	7,588.563 ₀	7,588.563 ₀	1.4527	0.0000	7,624.880 ₈

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.6101	11.5990	25.9448	0.0643	3.5536	0.4100	3.6422	1.5709	0.3854	1.9151	0.0000	6,493.837 ₇	6,493.837 ₇	1.2652	0.0000	6,524.921 ₀
2022	43.0838	12.1948	42.3860	0.0775	1.8385	0.3861	2.2246	0.4936	0.3659	0.8594	0.0000	7,588.563 ₀	7,588.563 ₀	1.4527	0.0000	7,624.880 ₈
Maximum	43.0838	12.1948	42.3860	0.0775	3.5536	0.4100	3.6422	1.5709	0.3854	1.9151	0.0000	7,588.563 ₀	7,588.563 ₀	1.4527	0.0000	7,624.880 ₈

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.65	67.10	-8.70	0.00	39.14	73.96	50.77	47.29	73.65	56.44	0.00	0.00	0.00	0.00	0.00	0.00

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

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	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Energy	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Mobile	2.8368	34.4328	34.2954	0.2123	13.0651	0.1904	13.2555	3.5398	0.1799	3.7197		22,159.5309	22,159.5309	0.9477		22,183.2237
Offroad	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	7.2237	38.6935	38.9818	0.2186	13.0651	0.4732	13.5382	3.5398	0.4403	3.9801		22,800.5860	22,800.5860	1.1404	9.0000e-004	22,829.3619

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Energy	4.4800e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.8521	48.8521	9.4000e-004	9.0000e-004	49.1424
Mobile	2.3569	27.2423	26.5994	0.1595	9.6983	0.1433	9.8417	2.6276	0.1354	2.7630		16.650.5962	16.650.5962	0.7368		16.669.0160
Offroad	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	6.7438	31.5030	31.2858	0.1658	9.6983	0.4261	10.1244	2.6276	0.3958	3.0234		17,291.6513	17,291.6513	0.9294	9.0000e-004	17,315.1543

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.64	18.58	19.74	24.15	25.77	9.95	25.22	25.77	10.11	24.04	0.00	24.16	24.16	18.50	0.00	24.15

3.0 Construction Detail**Construction Phase**

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/20/2021	5/17/2021	5	20	
2	Grading	Grading	7/18/2021	8/13/2021	5	20	
3	Building Construction	Building Construction	8/14/2021	7/1/2022	5	230	
4	Architectural Coating	Architectural Coating	5/8/2022	7/1/2022	5	40	
5	Paving	Paving	6/5/2022	7/1/2022	5	20	
6	Abandonment of Oil Wells	Trenching	5/18/2021	7/17/2021	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 261,317; Non-Residential Outdoor: 87,106; Striped Parking Area: 4,560 (Architectural Coating – sqft)

OffRoad Equipment

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
Abandonment of Oil Wells	Off-Highway Trucks	3	8.00	402	0.38
Abandonment of Oil Wells	Generator Sets	3	8.00	800	0.74

Trips and VMT

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	583.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	105.00	41.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Abandonment of Oil Wells	6	15.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2021**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					6.3063	0.0000	6.3063	0.9548	0.0000	0.9548			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513	1.4411	1.4411	1.4411		3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄
Total	3.1651	31.4407	21.5650	0.0388	6.3063	1.5513	7.8576	0.9548	1.4411	2.3959		3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**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	0.2489	7.9151	1.9441	0.0224	0.5097	0.0244	0.5341	0.1397	0.0233	0.1630		2,424.647 ₇	2,424.647 ₇	0.1734		2,428.981 ₅
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6662
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.3396	8.5453	2.6650	0.0255	0.7158	0.0269	0.7427	0.1953	0.0257	0.2210		2,745.892₇	2,745.892₇	0.1884		2,750.603₆

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					2.8378	0.0000	2.8378	0.4297	0.0000	0.4297			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.944 ₉	3,747.944 ₉	1.0549		3,774.317 ₄
Total	0.4623	2.0032	23.2798	0.0388	2.8378	0.0616	2.8995	0.4297	0.0616	0.4913	0.0000	3,747.944₉	3,747.944₉	1.0549		3,774.317₄

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**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	0.2489	7.9151	1.9441	0.0224	0.5097	0.0244	0.5341	0.1397	0.0233	0.1630		2,424.647 ₇	2,424.647 ₇	0.1734		2,428.981 ₅
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6662
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.3396	8.5453	2.6650	0.0255	0.7158	0.0269	0.7427	0.1953	0.0257	0.2210		2,745.892 ₇	2,745.892 ₇	0.1884		2,750.603 ₆

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599	1.0671	1.0671	1.0671		2,871.928 ₅	2,871.928 ₅	0.9288		2,895.149 ₅
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.928 ₅	2,871.928 ₅	0.9288		2,895.149 ₅

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6862
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.0907	0.6303	0.7208	3.1100e-003	0.2061	2.5800e-003	0.2087	0.0555	2.4300e-003	0.0580		321.2450	321.2450	0.0151		321.6222

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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	0.8110	6.7674	17.5072	0.0296		0.3686	0.3686	0.3417	0.3417	0.3417	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	0.8110	6.7674	17.5072	0.0296	2.9486	0.3686	3.3171	1.5154	0.3417	1.8571	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6662
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.0907	0.6303	0.7208	3.1100e-003	0.2061	2.5800e-003	0.2087	0.0555	2.4300e-003	0.0580		321.2450	321.2450	0.0151		321.6222

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1308	3.9724	1.1512	0.0103	0.2625	8.4000e-003	0.2709	0.0756	8.0300e-003	0.0836		1.096.116 ₇	1.096.116 ₇	0.0708		1.097.885 ₇
Worker	0.5007	0.3425	3.8667	0.0113	1.1737	9.4800e-003	1.1831	0.3113	8.7400e-003	0.3200		1.125.863 ₇	1.125.863 ₇	0.0331		1.126.691 ₉
Total	0.6315	4.3149	5.0178	0.0216	1.4361	0.0179	1.4540	0.3868	0.0168	0.4036		2,221.980 ₃	2,221.980 ₃	0.1039		2,224.577 ₆

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	0.9786	7.2841	17.4674	0.0269		0.3921	0.3921		0.3686	0.3686	0.0000	2,553.363 ₉	2,553.363 ₉	0.6160		2,568.764 ₃
Total	0.9786	7.2841	17.4674	0.0269		0.3921	0.3921		0.3686	0.3686	0.0000	2,553.363 ₉	2,553.363 ₉	0.6160		2,568.764 ₃

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1308	3.9724	1.1512	0.0103	0.2625	8.4000e-003	0.2709	0.0756	8.0300e-003	0.0836		1.096.116 ₇	1.096.116 ₇	0.0708		1.097.885 ₇
Worker	0.5007	0.3425	3.8667	0.0113	1.1737	9.4800e-003	1.1831	0.3113	8.7400e-003	0.3200		1.125.863 ₇	1.125.863 ₇	0.0331		1.126.691 ₉
Total	0.6315	4.3149	5.0178	0.0216	1.4361	0.0179	1.4540	0.3868	0.0168	0.4036		2,221.980 ₃	2,221.980 ₃	0.1039		2,224.577 ₆

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 ₆	2,554.333 ₆	0.6120		2,569.632 ₂
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 ₆	2,554.333 ₆	0.6120		2,569.632 ₂

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1228	3.7753	1.0897	0.0102	0.2625	7.3500e-003	0.2698	0.0756	7.0300e-003	0.0826		1,086.378 2	1,086.378 2	0.0683		1,088.085 0
Worker	0.4702	0.3093	3.5614	0.0109	1.1737	9.1900e-003	1.1828	0.3113	8.4600e-003	0.3197		1,086.297 9	1,086.297 9	0.0299		1,087.045 7
Total	0.5931	4.0845	4.6510	0.0211	1.4361	0.0165	1.4527	0.3868	0.0155	0.4023		2,172.676 1	2,172.676 1	0.0982		2,175.130 7

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	0.8934	6.6602	17.3859	0.0269		0.3250	0.3250		0.3061	0.3061	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	0.8934	6.6602	17.3859	0.0269		0.3250	0.3250		0.3061	0.3061	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1228	3.7753	1.0897	0.0102	0.2625	7.3500e-003	0.2698	0.0756	7.0300e-003	0.0826		1.086.378 2	1.086.378 2	0.0683		1.088.085 0
Worker	0.4702	0.3093	3.5614	0.0109	1.1737	9.1900e-003	1.1828	0.3113	8.4600e-003	0.3197		1.086.297 9	1.086.297 9	0.0299		1.087.045 7
Total	0.5931	4.0845	4.6510	0.0211	1.4361	0.0165	1.4527	0.3868	0.0155	0.4023		2.172.676 1	2.172.676 1	0.0982		2.175.130 7

3.5 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	40.9019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	41.1065	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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3.5 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0619	0.7123	2.1800e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		217.2596	217.2596	5.9800e-003		217.4091
Total	0.0941	0.0619	0.7123	2.1800e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		217.2596	217.2596	5.9800e-003		217.4091

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	40.9019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	40.9316	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

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3.5 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0619	0.7123	2.1800e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		217.2596	217.2596	5.9800e-003		217.4091
Total	0.0941	0.0619	0.7123	2.1800e-003	0.2347	1.8400e-003	0.2366	0.0623	1.6900e-003	0.0639		217.2596	217.2596	5.9800e-003		217.4091

3.6 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 ₃	2,207.660 ₃	0.7140		2,225.510 ₄
Paving	0.2240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3268	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 ₃	2,207.660 ₃	0.7140		2,225.510 ₄

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3.6 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660 ₃	2,207.660 ₃	0.7140		2,225.510 ₄
Paving	0.2240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5045	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660₃	2,207.660₃	0.7140		2,225.510₄

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3.6 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922

3.7 Abandonment of Oil Wells - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8268	15.8691	10.8671	0.0398		0.5821	0.5821		0.5355	0.5355		3,854.7468	3,854.7468	1.2467		3,885,9144
Total	1.8268	15.8691	10.8671	0.0398		0.5821	0.5821		0.5355	0.5355		3,854.7468	3,854.7468	1.2467		3,885,9144

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3.7 Abandonment of Oil Wells - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.7751	0.2246	2.0000e-003	0.0512	1.6400e-003	0.0529	0.0148	1.5700e-003	0.0163		213.8764	213.8764	0.0138		214.2216
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.0971	0.8240	0.7770	3.6100e-003	0.2189	2.9900e-003	0.2219	0.0592	2.8200e-003	0.0620		374.7141	374.7141	0.0185		375.1776

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	0.4874	2.1120	17.8708	0.0398		0.0650	0.0650		0.0650	0.0650	0.0000	3,854.7468	3,854.7468	1.2467		3,885,9144
Total	0.4874	2.1120	17.8708	0.0398		0.0650	0.0650		0.0650	0.0650	0.0000	3,854.7468	3,854.7468	1.2467		3,885,9144

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

3.7 Abandonment of Oil Wells - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.7751	0.2246	2.0000e-003	0.0512	1.6400e-003	0.0529	0.0148	1.5700e-003	0.0163		213.8764	213.8764	0.0138		214.2216
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.0971	0.8240	0.7770	3.6100e-003	0.2189	2.9900e-003	0.2219	0.0592	2.8200e-003	0.0620		374.7141	374.7141	0.0185		375.1776

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Improve Pedestrian Network

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	2.3569	27.2423	26.5994	0.1595	9.6983	0.1433	9.8417	2.6276	0.1354	2.7630	16,650.59	62	16,650.59	0.7368		16,669.01
													62			60
Unmitigated	2.8368	34.4328	34.2954	0.2123	13.0651	0.1904	13.2555	3.5398	0.1799	3.7197	22,159.53	09	22,159.53	0.9477		22,183.22
													09			37

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated		
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT		
Parking Lot	121.60	121.60	121.60	1,770,496		1,314,258		
Unrefrigerated Warehouse-No Rail	973.83	973.83	973.83	4,173,576		3,098,091		
Total	1,095.43	1,095.43	1,095.43	5,944,072		4,412,349		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Parking Lot	16.60	40.00	6.90	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.247000	0.206000	0.547000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.683000	0.056000	0.255000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.006000	0.000000	0.000000

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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					
Natural Gas Mitigated	4.48000e-003	0.0407	0.0342	2.40000e-004		3.09000e-003	3.09000e-003		3.09000e-003	3.09000e-003		48.8521	48.8521	9.40000e-004	9.00000e-004	49.1424
Natural Gas Unmitigated	4.48000e-003	0.0407	0.0342	2.40000e-004		3.09000e-003	3.09000e-003		3.09000e-003	3.09000e-003		48.8521	48.8521	9.40000e-004	9.00000e-004	49.1424

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

Land Use	NaturalGas s 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
	kBTU/yr																
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	415.243	4.4800e- 003	0.0407	0.0342	2.4000e- 004		3.0900e- 003	3.0900e- 003		3.0900e- 003	3.0900e- 003		48.8521	48.8521	9.4000e- 004	9.0000e- 004	49.1424
Total		4.4800e- 003	0.0407	0.0342	2.4000e- 004		3.0900e- 003	3.0900e- 003		3.0900e- 003	3.0900e- 003		48.8521	48.8521	9.4000e- 004	9.0000e- 004	49.1424

Mitigated

Land Use	NaturalGas s 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
	kBTU/yr																
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.415243	4.4800e- 003	0.0407	0.0342	2.4000e- 004		3.0900e- 003	3.0900e- 003		3.0900e- 003	3.0900e- 003		48.8521	48.8521	9.4000e- 004	9.0000e- 004	49.1424
Total		4.4800e- 003	0.0407	0.0342	2.4000e- 004		3.0900e- 003	3.0900e- 003		3.0900e- 003	3.0900e- 003		48.8521	48.8521	9.4000e- 004	9.0000e- 004	49.1424

6.0 Area Detail**6.1 Mitigation Measures Area**

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Unmitigated	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

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	0.4482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Total	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4763					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4600e-003	3.4000e-004	0.0372	0.0000	1.3000e-004	1.3000e-004	1.3000e-004	1.3000e-004	1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850
Total	3.9280	3.4000e-004	0.0372	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0797	0.0797	2.1000e-004		0.0850

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet
 Install Low Flow Kitchen Faucet
 Install Low Flow Toilet
 Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

9.0 Operational Offroad

Bridge Point South Bay VII - 1355 W Sepulveda Blvd - Los Angeles-South Coast County, Winter

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	4	8.00	260	89	0.20	CNG

UnMitigated/Mitigated

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Forklifts	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109
Total	0.4544	4.2196	4.6150	6.1100e-003		0.2795	0.2795		0.2572	0.2572		592.1233	592.1233	0.1915		596.9109

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

APPENDIX B

EMFAC2017 Model Printouts

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2022	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.029987
2022	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.010342
2022	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.006546
2022	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001469
2022	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.0053
2022	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001619
2022	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.034208
2022	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.013555
2022	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.005089
2022	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001162
2022	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.043314
2022	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.022502
2022	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004348
2022	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.000969
2022	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.009679
2022	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.005619
2022	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.082945
2022	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008651
2022	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.072719
2022	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008001
2022	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.036775
2022	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007986
2022	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036926
2022	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033466
2022	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068736
2022	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.808364
2022	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2022	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080007
2022	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2022	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078227
2022	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.02544
2022	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026863
2022	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087857
2022	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012058
2022	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129845
2022	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.071873
2022	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2022	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2023	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.021288
2023	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.008017
2023	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.00624
2023	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001396
2023	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005311
2023	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001625

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2023	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.031448
2023	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.012736
2023	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.005021
2023	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001141
2023	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.009783
2023	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.007137
2023	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004358
2023	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.000968
2023	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.008898
2023	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.00518
2023	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.055928
2023	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008635
2023	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.071504
2023	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008001
2023	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03677
2023	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007986
2023	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036931
2023	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033466
2023	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068736
2023	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.805894
2023	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2023	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.08001
2023	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2023	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078242
2023	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.017073
2023	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026833
2023	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087942
2023	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012059
2023	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129836
2023	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.062996
2023	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2023	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2024	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.018238
2024	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.007029
2024	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.005988
2024	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001336
2024	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005326
2024	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001632
2024	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.029202
2024	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.012078
2024	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004971
2024	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001125
2024	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.00969
2024	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.007192

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2024	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004389
2024	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.000972
2024	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.008244
2024	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.004814
2024	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.050995
2024	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008623
2024	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.070521
2024	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008001
2024	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.036767
2024	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007986
2024	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036937
2024	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033466
2024	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068737
2024	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.804149
2024	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2024	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080012
2024	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2024	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078255
2024	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.01621
2024	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026808
2024	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.088013
2024	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.01206
2024	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129823
2024	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.055464
2024	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2024	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2025	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.016029
2025	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.006312
2025	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.005779
2025	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001287
2025	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005339
2025	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001639
2025	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.027353
2025	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.011541
2025	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004938
2025	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001113
2025	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.00954
2025	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.007185
2025	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004431
2025	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.000979
2025	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.007686
2025	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.004505
2025	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.045792
2025	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.00861

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2025	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.069707
2025	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008001
2025	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.036764
2025	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007985
2025	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.036943
2025	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033468
2025	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068731
2025	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.803209
2025	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2025	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080014
2025	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2025	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078265
2025	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.015467
2025	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.026794
2025	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.088055
2025	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012062
2025	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.12981
2025	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.049022
2025	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2025	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2026	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.013944
2026	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.005644
2026	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.005542
2026	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.001233
2026	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005352
2026	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001646
2026	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.025779
2026	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.011087
2026	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.004911
2026	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.001102
2026	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.009345
2026	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.007134
2026	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004482
2026	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.000989
2026	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.007208
2026	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.004234
2026	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.040929
2026	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008605
2026	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.069086
2026	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008001
2026	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.036763
2026	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007985
2026	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.036949
2026	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033468

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2026	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068732
2026	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.802614
2026	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2026	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080015
2026	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2026	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078274
2026	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.01465
2026	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026789
2026	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.088068
2026	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012063
2026	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129796
2026	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.043508
2026	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2026	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2027	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.01179
2027	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.004958
2027	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.005255
2027	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001168
2027	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005364
2027	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001652
2027	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.024429
2027	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.010698
2027	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.0049
2027	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001096
2027	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.009149
2027	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.007071
2027	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004533
2027	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001
2027	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.006813
2027	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.004003
2027	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.03623
2027	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.0086
2027	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068583
2027	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008001
2027	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.036762
2027	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007985
2027	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036955
2027	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033467
2027	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068733
2027	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.801866
2027	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2027	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080016
2027	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2027	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078281

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2027	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.013966
2027	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026785
2027	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.08808
2027	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012065
2027	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129782
2027	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.038894
2027	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2027	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2028	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.010147
2028	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.004438
2028	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.004932
2028	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001095
2028	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005347
2028	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001644
2028	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.023266
2028	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.010362
2028	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004902
2028	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001094
2028	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.008973
2028	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.007009
2028	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004582
2028	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.00101
2028	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.006489
2028	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003808
2028	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.031987
2028	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.00859
2028	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068199
2028	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2028	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2028	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007984
2028	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036962
2028	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2028	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2028	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.801152
2028	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2028	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080017
2028	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2028	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078288
2028	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.013388
2028	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.02679
2028	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.088065
2028	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012067
2028	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129769
2028	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.035022

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2028	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2028	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2029	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.008905
2029	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.004048
2029	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.004633
2029	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.001028
2029	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005358
2029	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001649
2029	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.022253
2029	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.010069
2029	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004894
2029	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001088
2029	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.008786
2029	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006934
2029	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004626
2029	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001019
2029	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.006205
2029	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003646
2029	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.02823
2029	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008588
2029	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.067962
2029	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2029	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2029	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007984
2029	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036969
2029	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2029	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2029	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.800125
2029	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2029	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080018
2029	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2029	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078294
2029	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.012771
2029	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026798
2029	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.088043
2029	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012068
2029	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129758
2029	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.031662
2029	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2029	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2030	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.007901
2030	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.003732
2030	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.004359
2030	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000966

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2030	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005297
2030	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001618
2030	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.021392
2030	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.009819
2030	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004884
2030	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001082
2030	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.008613
2030	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006861
2030	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004669
2030	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001028
2030	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005996
2030	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003522
2030	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.02498
2030	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008587
2030	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.067841
2030	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2030	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2030	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007984
2030	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036975
2030	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2030	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2030	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.799556
2030	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2030	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080018
2030	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2030	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078299
2030	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.012243
2030	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026809
2030	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.088012
2030	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012069
2030	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129748
2030	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.029024
2030	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2030	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2031	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.00721
2031	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.003511
2031	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.004105
2031	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000909
2031	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005311
2031	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001625
2031	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.020633
2031	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.009596
2031	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004873
2031	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001075

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2031	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.00846
2031	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006796
2031	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004708
2031	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001036
2031	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005802
2031	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003407
2031	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.022186
2031	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008586
2031	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.067804
2031	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2031	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2031	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007984
2031	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036982
2031	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2031	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2031	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.798382
2031	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2031	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080019
2031	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2031	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078304
2031	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.011806
2031	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026816
2031	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087992
2031	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.01207
2031	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129739
2031	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.026641
2031	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2031	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2032	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.006567
2032	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.003301
2032	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.00387
2032	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000856
2032	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005315
2032	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001627
2032	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.019979
2032	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.009403
2032	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004873
2032	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001072
2032	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.008315
2032	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006734
2032	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004739
2032	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001043
2032	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005653
2032	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003321

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2032	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.019756
2032	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008586
2032	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.067817
2032	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2032	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2032	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007984
2032	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.036989
2032	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2032	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2032	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.798052
2032	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2032	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080018
2032	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2032	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078307
2032	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.011488
2032	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.026827
2032	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.087959
2032	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012071
2032	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.129733
2032	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.024762
2032	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2032	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2033	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.006096
2033	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.003139
2033	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.003652
2033	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.000808
2033	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005297
2033	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001618
2033	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.019403
2033	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.009231
2033	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.004863
2033	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.00107
2033	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.008198
2033	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.006683
2033	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004766
2033	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.001049
2033	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.00553
2033	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.003246
2033	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.017602
2033	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008587
2033	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.067859
2033	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2033	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2033	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007984

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_	pollutant	emission_r
2033	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.036995
2033	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2033	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2033	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.797626
2033	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2033	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080018
2033	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2033	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078312
2033	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.011234
2033	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026839
2033	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087924
2033	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012071
2033	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129727
2033	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.0233
2033	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2033	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2034	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.005683
2034	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002988
2034	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.003449
2034	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000762
2034	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005308
2034	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001624
2034	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.018871
2034	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.00907
2034	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004838
2034	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001065
2034	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.008078
2034	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006627
2034	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004789
2034	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001054
2034	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005424
2034	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003184
2034	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.01565
2034	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008589
2034	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.067923
2034	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2034	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2034	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007984
2034	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037001
2034	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2034	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2034	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.796747
2034	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2034	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080018

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2034	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2034	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078316
2034	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010973
2034	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026853
2034	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087886
2034	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012072
2034	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129722
2034	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.021908
2034	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2034	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2035	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.005327
2035	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002848
2035	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.003263
2035	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000721
2035	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005321
2035	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001631
2035	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.018368
2035	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008915
2035	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004822
2035	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001061
2035	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007982
2035	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.00658
2035	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.00481
2035	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001058
2035	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005346
2035	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003139
2035	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.013911
2035	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008591
2035	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068019
2035	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2035	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2035	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2035	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037007
2035	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2035	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2035	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.795833
2035	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2035	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080017
2035	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2035	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.07832
2035	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010782
2035	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026867
2035	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087845
2035	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012072

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_	pollutant	emission_r
2035	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129719
2035	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.020945
2035	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2035	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2036	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.005023
2036	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002722
2036	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.003101
2036	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000685
2036	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005334
2036	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001637
2036	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.018034
2036	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008811
2036	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004828
2036	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001062
2036	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007908
2036	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.00655
2036	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004829
2036	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001062
2036	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005281
2036	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003102
2036	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.01243
2036	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008593
2036	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068136
2036	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2036	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2036	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2036	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037012
2036	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2036	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2036	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.795989
2036	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2036	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080018
2036	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2036	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078324
2036	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010641
2036	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026885
2036	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087793
2036	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012073
2036	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129716
2036	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.020138
2036	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2036	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2037	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004767
2037	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002611

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2037	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002956
2037	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000652
2037	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005347
2037	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001644
2037	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.017718
2037	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008711
2037	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004834
2037	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001064
2037	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007856
2037	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006529
2037	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004843
2037	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001066
2037	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.00522
2037	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003072
2037	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.011193
2037	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008596
2037	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.06829
2037	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2037	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2037	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2037	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037016
2037	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2037	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2037	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.796142
2037	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2037	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080019
2037	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2037	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078327
2037	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010535
2037	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026905
2037	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087737
2037	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012073
2037	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129714
2037	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.019399
2037	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2037	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2038	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004555
2038	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002516
2038	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002828
2038	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000624
2038	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005357
2038	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001649
2038	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.017436
2038	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008619

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2038	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004839
2038	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001065
2038	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007816
2038	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006514
2038	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004855
2038	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001068
2038	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005161
2038	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003047
2038	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.010212
2038	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008599
2038	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068466
2038	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2038	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2038	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2038	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037021
2038	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2038	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2038	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.796227
2038	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2038	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080019
2038	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2038	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.07833
2038	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010443
2038	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026925
2038	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087679
2038	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012073
2038	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129712
2038	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.018801
2038	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2038	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2039	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004382
2039	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002435
2039	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002714
2039	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000599
2039	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005346
2039	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001643
2039	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.017177
2039	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008532
2039	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.00484
2039	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001065
2039	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007787
2039	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006504
2039	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004865
2039	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.00107

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2039	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005093
2039	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.003017
2039	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.009485
2039	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008603
2039	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068629
2039	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2039	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2039	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2039	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037025
2039	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2039	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2039	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.796536
2039	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2039	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080019
2039	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2039	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078332
2039	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010362
2039	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026946
2039	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087619
2039	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012073
2039	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129711
2039	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.018143
2039	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2039	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2040	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004237
2040	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002367
2040	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002614
2040	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000577
2040	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005356
2040	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001649
2040	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016957
2040	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008457
2040	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004843
2040	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001065
2040	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007764
2040	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.0065
2040	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004872
2040	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001072
2040	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.005017
2040	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.002981
2040	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.008989
2040	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008606
2040	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068766
2040	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2040	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2040	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2040	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.037026
2040	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2040	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2040	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.796789
2040	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2040	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080019
2040	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2040	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078335
2040	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.010282
2040	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.026968
2040	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.087557
2040	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012073
2040	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.12971
2040	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.017416
2040	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2040	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2041	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004117
2041	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002311
2041	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.002538
2041	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.00056
2041	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005299
2041	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001619
2041	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.01677
2041	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.008392
2041	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.004852
2041	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.001068
2041	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.007743
2041	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.006496
2041	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004878
2041	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.001073
2041	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.004936
2041	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.002941
2041	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.008676
2041	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008609
2041	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.06888
2041	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2041	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2041	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2041	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.037021
2041	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2041	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2041	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.796993

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2041	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2041	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.08002
2041	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2041	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078338
2041	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.01021
2041	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026978
2041	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087529
2041	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2041	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129709
2041	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.01666
2041	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2041	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2042	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.004019
2042	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002266
2042	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002472
2042	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000545
2042	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005312
2042	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001626
2042	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016603
2042	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008332
2042	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.00486
2042	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001069
2042	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.00773
2042	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006498
2042	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004884
2042	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001075
2042	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.004858
2042	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.002897
2042	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.0085
2042	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008612
2042	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068948
2042	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2042	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2042	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2042	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.03702
2042	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2042	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2042	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.797172
2042	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2042	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080021
2042	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2042	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078341
2042	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010155
2042	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.026997

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2042	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087473
2042	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2042	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129709
2042	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.015868
2042	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2042	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2043	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003938
2043	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002229
2043	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002417
2043	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000533
2043	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005315
2043	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001628
2043	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016475
2043	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008285
2043	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004866
2043	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001071
2043	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.00772
2043	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.0065
2043	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004889
2043	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001076
2043	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.004783
2043	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.002856
2043	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.008414
2043	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008615
2043	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.068992
2043	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2043	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2043	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2043	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037028
2043	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2043	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2043	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.797301
2043	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2043	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080023
2043	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2043	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078344
2043	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.010111
2043	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.027017
2043	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087415
2043	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2043	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129709
2043	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.015079
2043	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2043	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2044	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003873
2044	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002199
2044	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.00237
2044	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.000523
2044	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005299
2044	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001619
2044	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.016339
2044	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.008237
2044	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.00487
2044	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.001071
2044	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.007708
2044	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.006504
2044	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004892
2044	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.001076
2044	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.004724
2044	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.00282
2044	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.008378
2044	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008618
2044	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.069044
2044	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2044	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2044	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2044	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.037035
2044	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2044	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2044	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.797459
2044	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2044	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080024
2044	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2044	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078347
2044	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.010063
2044	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.027037
2044	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.087358
2044	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012074
2044	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.129708
2044	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.014404
2044	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2044	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2045	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003817
2045	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002175
2045	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.00233
2045	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.000514
2045	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005309
2045	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001624

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2045	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016235
2045	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008201
2045	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004872
2045	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001072
2045	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007699
2045	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006508
2045	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004895
2045	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001077
2045	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.004674
2045	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.00279
2045	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.008365
2045	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008621
2045	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.069114
2045	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2045	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2045	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2045	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037042
2045	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2045	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2045	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.797586
2045	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2045	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080025
2045	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2045	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.07835
2045	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.01002
2045	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.027057
2045	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087302
2045	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2045	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129708
2045	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.013774
2045	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2045	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2046	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003775
2046	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002157
2046	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.002297
2046	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000507
2046	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005322
2046	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001631
2046	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016142
2046	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.00817
2046	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004874
2046	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001072
2046	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007691
2046	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006511

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2046	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.004898
2046	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001078
2046	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.004606
2046	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.00276
2046	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.008363
2046	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008625
2046	Annual	Los Angeles	(S NonTruck	Dsl			PMBW		PM10	0.06921
2046	Annual	Los Angeles	(S NonTruck	Elec			PMTW		PM10	0.008
2046	Annual	Los Angeles	(S NonTruck	Elec			PMBW		PM10	0.03675
2046	Annual	Los Angeles	(S NonTruck	Gas			PMTW		PM10	0.007983
2046	Annual	Los Angeles	(S NonTruck	Gas			PMBW		PM10	0.037049
2046	Annual	Los Angeles	(S NonTruck	NG			PMTW		PM10	0.033421
2046	Annual	Los Angeles	(S NonTruck	NG			PMBW		PM10	0.068867
2046	Annual	Los Angeles	(S Truck1	Dsl			IDLEX		PM10	0.797711
2046	Annual	Los Angeles	(S Truck1	Dsl			PMTW		PM10	0.012
2046	Annual	Los Angeles	(S Truck1	Dsl			PMBW		PM10	0.080026
2046	Annual	Los Angeles	(S Truck1	Gas			PMTW		PM10	0.008
2046	Annual	Los Angeles	(S Truck1	Gas			PMBW		PM10	0.078353
2046	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.009982
2046	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.027074
2046	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087254
2046	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2046	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129708
2046	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.013094
2046	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2046	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174
2047	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003742
2047	Annual	Los Angeles	(S NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002144
2047	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	10	PM10	0.00227
2047	Annual	Los Angeles	(S NonTruck	Gas	62	50	RUNEX	35	PM10	0.000501
2047	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	10	PM10	0.005334
2047	Annual	Los Angeles	(S NonTruck	NG	62	50	RUNEX	35	PM10	0.001637
2047	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	10	PM10	0.016072
2047	Annual	Los Angeles	(S Truck1	Dsl	62	50	RUNEX	35	PM10	0.008146
2047	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	10	PM10	0.004875
2047	Annual	Los Angeles	(S Truck1	Gas	62	50	RUNEX	35	PM10	0.001072
2047	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	10	PM10	0.007684
2047	Annual	Los Angeles	(S Truck2	Dsl	62	50	RUNEX	35	PM10	0.006513
2047	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	10	PM10	0.0049
2047	Annual	Los Angeles	(S Truck2	Gas	62	50	RUNEX	35	PM10	0.001078
2047	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	10	PM10	0.004529
2047	Annual	Los Angeles	(S Truck2	NG	62	50	RUNEX	35	PM10	0.002732
2047	Annual	Los Angeles	(S NonTruck	Dsl			IDLEX		PM10	0.008364
2047	Annual	Los Angeles	(S NonTruck	Dsl			PMTW		PM10	0.008628

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_↑	pollutant	emission_r
2047	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.069329
2047	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2047	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2047	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2047	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.037055
2047	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2047	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2047	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.797805
2047	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2047	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080028
2047	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2047	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078356
2047	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.009951
2047	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.027091
2047	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.087206
2047	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012074
2047	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.129708
2047	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.012411
2047	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2047	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2048	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003723
2048	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002132
2048	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.002247
2048	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.000496
2048	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005345
2048	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001643
2048	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.016
2048	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.008122
2048	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.004874
2048	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.001072
2048	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.007686
2048	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.006516
2048	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004902
2048	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.001078
2048	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.004485
2048	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.002695
2048	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.008366
2048	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008632
2048	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.069454
2048	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2048	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2048	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2048	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.03706
2048	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421

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calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_	pollutant	emission_r
2048	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2048	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.797908
2048	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2048	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.08003
2048	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2048	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078359
2048	Annual	Los Angeles (S	Truck2	Dsl			IDLEX		PM10	0.009929
2048	Annual	Los Angeles (S	Truck2	Dsl			PMTW		PM10	0.027108
2048	Annual	Los Angeles (S	Truck2	Dsl			PMBW		PM10	0.087157
2048	Annual	Los Angeles (S	Truck2	Gas			PMTW		PM10	0.012074
2048	Annual	Los Angeles (S	Truck2	Gas			PMBW		PM10	0.129708
2048	Annual	Los Angeles (S	Truck2	NG			IDLEX		PM10	0.011807
2048	Annual	Los Angeles (S	Truck2	NG			PMTW		PM10	0.036
2048	Annual	Los Angeles (S	Truck2	NG			PMBW		PM10	0.06174
2049	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	10	PM10	0.003707
2049	Annual	Los Angeles (S	NonTruck	Dsl	62	50	RUNEX	35	PM10	0.002122
2049	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	10	PM10	0.002233
2049	Annual	Los Angeles (S	NonTruck	Gas	62	50	RUNEX	35	PM10	0.000492
2049	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	10	PM10	0.005356
2049	Annual	Los Angeles (S	NonTruck	NG	62	50	RUNEX	35	PM10	0.001648
2049	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	10	PM10	0.015932
2049	Annual	Los Angeles (S	Truck1	Dsl	62	50	RUNEX	35	PM10	0.0081
2049	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	10	PM10	0.004882
2049	Annual	Los Angeles (S	Truck1	Gas	62	50	RUNEX	35	PM10	0.001074
2049	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	10	PM10	0.00769
2049	Annual	Los Angeles (S	Truck2	Dsl	62	50	RUNEX	35	PM10	0.006519
2049	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	10	PM10	0.004903
2049	Annual	Los Angeles (S	Truck2	Gas	62	50	RUNEX	35	PM10	0.001079
2049	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	10	PM10	0.004417
2049	Annual	Los Angeles (S	Truck2	NG	62	50	RUNEX	35	PM10	0.00264
2049	Annual	Los Angeles (S	NonTruck	Dsl			IDLEX		PM10	0.00837
2049	Annual	Los Angeles (S	NonTruck	Dsl			PMTW		PM10	0.008635
2049	Annual	Los Angeles (S	NonTruck	Dsl			PMBW		PM10	0.06957
2049	Annual	Los Angeles (S	NonTruck	Elec			PMTW		PM10	0.008
2049	Annual	Los Angeles (S	NonTruck	Elec			PMBW		PM10	0.03675
2049	Annual	Los Angeles (S	NonTruck	Gas			PMTW		PM10	0.007983
2049	Annual	Los Angeles (S	NonTruck	Gas			PMBW		PM10	0.037062
2049	Annual	Los Angeles (S	NonTruck	NG			PMTW		PM10	0.033421
2049	Annual	Los Angeles (S	NonTruck	NG			PMBW		PM10	0.068867
2049	Annual	Los Angeles (S	Truck1	Dsl			IDLEX		PM10	0.798006
2049	Annual	Los Angeles (S	Truck1	Dsl			PMTW		PM10	0.012
2049	Annual	Los Angeles (S	Truck1	Dsl			PMBW		PM10	0.080031
2049	Annual	Los Angeles (S	Truck1	Gas			PMTW		PM10	0.008
2049	Annual	Los Angeles (S	Truck1	Gas			PMBW		PM10	0.078362

EMFAC2017 Version 1.0.2

calenda	season_n	sub_area	vehicle_clas	fuel	temper	relative_	process	speed_	pollutant	emission_r
2049	Annual	Los Angeles	(S Truck2	Dsl			IDLEX		PM10	0.009911
2049	Annual	Los Angeles	(S Truck2	Dsl			PMTW		PM10	0.027124
2049	Annual	Los Angeles	(S Truck2	Dsl			PMBW		PM10	0.087109
2049	Annual	Los Angeles	(S Truck2	Gas			PMTW		PM10	0.012074
2049	Annual	Los Angeles	(S Truck2	Gas			PMBW		PM10	0.129708
2049	Annual	Los Angeles	(S Truck2	NG			IDLEX		PM10	0.01096
2049	Annual	Los Angeles	(S Truck2	NG			PMTW		PM10	0.036
2049	Annual	Los Angeles	(S Truck2	NG			PMBW		PM10	0.06174

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: Air Basin

Region: SOUTH COAST

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Yr	Vehicle Cat	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO,	2022	HHDT			Aggregatec Aggregatec GAS	77,19581	7790.40352	1544.534	1.875688287
SOUTH CO,	2022	LDA			Aggregatec Aggregatec GAS	6370883	246404319.3	30101253	7989.700531
SOUTH CO,	2022	LDT1			Aggregatec Aggregatec GAS	716397.4	26563674.69	3305301	1003.18171
SOUTH CO,	2022	LDT2			Aggregatec Aggregatec GAS	2182002	82381240.23	10234301	3339.886942
SOUTH CO,	2022	LHDT1			Aggregatec Aggregatec GAS	171358.6	6138928.512	2552988	583.2281345
SOUTH CO,	2022	LHDT2			Aggregatec Aggregatec GAS	29049.29	1009215.767	432791.1	110.1260053
SOUTH CO,	2022	MCY			Aggregatec Aggregatec GAS	288756.3	1994249.265	577512.7	54.92216124
SOUTH CO,	2022	MDV			Aggregatec Aggregatec GAS	1530646	54105469.86	7077024	2704.447563
SOUTH CO,	2022	MH			Aggregatec Aggregatec GAS	34090.76	324253.0827	3410.439	62.96118679
SOUTH CO,	2022	MHDT			Aggregatec Aggregatec GAS	24783.34	1316472.619	495865	259.391887
SOUTH CO,	2022	OBUS			Aggregatec Aggregatec GAS	5832.051	240794.901	116687.7	47.77312679
SOUTH CO,	2022	SBUS			Aggregatec Aggregatec GAS	2563.073	102707.6059	10252.29	11.26572543
SOUTH CO,	2022	UBUS			Aggregatec Aggregatec GAS	952.146	89255.99818	3808.584	18.40085629

vehicle miles per day (All Categories) 420678372 16,187 1,000 gall per day
16,187,162 gallons per day

Fleet Avg Miles per gallon 26.0

Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

[illegible]

APPENDIX C

AERMOD Model Years 2022 – 2023 Operational PM10 Printouts

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 9/30/2020
** File: C:\Vista Env\2020\20072 LA Sepulveda\AERMOD\Ops2022\Ops2022.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE Bridge Point South Bay VII - Operations DPM 2022-2023
  TITLETWO PM10 Exhaust
  MODELOPT DFAULT CONC
  AVERTIME 24 ANNUAL
  URBANOPT 9818605 Los_Angeles_County
  POLLUTID PM_10
  RUNORNOT RUN
  ERRORFIL Ops2022.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDSEPW
** DESCRSRC Sepulveda Bl West of Project
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 3.37E-07
** Vertical Dimension = 6.00
** SZINIT = 2.79
** Nodes = 2
** 379445.590, 3742373.655, 17.56, 0.00, 5.67
** 379029.123, 3742563.703, 18.87, 0.00, 5.67
** -----
**
LOCATION L0000173      VOLUME    379440.044 3742376.186 17.58
LOCATION L0000174      VOLUME    379428.953 3742381.247 17.63
LOCATION L0000175      VOLUME    379417.861 3742386.309 17.62
LOCATION L0000176      VOLUME    379406.769 3742391.370 17.68

```

LOCATION	L0000177	VOLUME	379395.678	3742396.432	17.67
LOCATION	L0000178	VOLUME	379384.586	3742401.493	17.72
LOCATION	L0000179	VOLUME	379373.494	3742406.555	17.74
LOCATION	L0000180	VOLUME	379362.403	3742411.616	17.77
LOCATION	L0000181	VOLUME	379351.311	3742416.678	17.77
LOCATION	L0000182	VOLUME	379340.219	3742421.739	17.81
LOCATION	L0000183	VOLUME	379329.127	3742426.801	17.83
LOCATION	L0000184	VOLUME	379318.036	3742431.862	17.85
LOCATION	L0000185	VOLUME	379306.944	3742436.924	17.88
LOCATION	L0000186	VOLUME	379295.852	3742441.985	17.91
LOCATION	L0000187	VOLUME	379284.761	3742447.047	17.90
LOCATION	L0000188	VOLUME	379273.669	3742452.108	17.91
LOCATION	L0000189	VOLUME	379262.577	3742457.170	17.92
LOCATION	L0000190	VOLUME	379251.485	3742462.231	17.99
LOCATION	L0000191	VOLUME	379240.394	3742467.293	18.05
LOCATION	L0000192	VOLUME	379229.302	3742472.355	18.05
LOCATION	L0000193	VOLUME	379218.210	3742477.416	18.10
LOCATION	L0000194	VOLUME	379207.119	3742482.478	18.10
LOCATION	L0000195	VOLUME	379196.027	3742487.539	18.14
LOCATION	L0000196	VOLUME	379184.935	3742492.601	18.14
LOCATION	L0000197	VOLUME	379173.843	3742497.662	18.20
LOCATION	L0000198	VOLUME	379162.752	3742502.724	18.20
LOCATION	L0000199	VOLUME	379151.660	3742507.785	18.28
LOCATION	L0000200	VOLUME	379140.568	3742512.847	18.30
LOCATION	L0000201	VOLUME	379129.477	3742517.908	18.39
LOCATION	L0000202	VOLUME	379118.385	3742522.970	18.41
LOCATION	L0000203	VOLUME	379107.293	3742528.031	18.48
LOCATION	L0000204	VOLUME	379096.202	3742533.093	18.52
LOCATION	L0000205	VOLUME	379085.110	3742538.154	18.59
LOCATION	L0000206	VOLUME	379074.018	3742543.216	18.63
LOCATION	L0000207	VOLUME	379062.926	3742548.277	18.69
LOCATION	L0000208	VOLUME	379051.835	3742553.339	18.74
LOCATION	L0000209	VOLUME	379040.743	3742558.400	18.80
LOCATION	L0000210	VOLUME	379029.651	3742563.462	18.85

** End of LINE VOLUME Source ID = RDSEPW

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDSEPE

** DESCRSRC Sepulveda Bl east of Project

** PREFIX

** Length of Side = 12.19

** Configuration = Adjacent

** Emission Rate = 8.49E-06

** Vertical Dimension = 1.83

** SZINIT = 0.85

** Nodes = 2

** 379455.580, 3742370.001, 17.56, 0.00, 5.67

** 380009.666, 3742119.914, 16.29, 0.00, 5.67

** -----

LOCATION	L0000211	VOLUME	379461.136	3742367.494	17.52
LOCATION	L0000212	VOLUME	379472.249	3742362.478	17.51
LOCATION	L0000213	VOLUME	379483.361	3742357.462	17.49
LOCATION	L0000214	VOLUME	379494.474	3742352.447	17.46
LOCATION	L0000215	VOLUME	379505.586	3742347.431	17.44

LOCATION	L0000216	VOLUME	379516.699	3742342.415	17.42
LOCATION	L0000217	VOLUME	379527.811	3742337.400	17.39
LOCATION	L0000218	VOLUME	379538.924	3742332.384	17.35
LOCATION	L0000219	VOLUME	379550.036	3742327.368	17.35
LOCATION	L0000220	VOLUME	379561.149	3742322.353	17.30
LOCATION	L0000221	VOLUME	379572.262	3742317.337	17.30
LOCATION	L0000222	VOLUME	379583.374	3742312.321	17.26
LOCATION	L0000223	VOLUME	379594.487	3742307.306	17.28
LOCATION	L0000224	VOLUME	379605.599	3742302.290	17.29
LOCATION	L0000225	VOLUME	379616.712	3742297.274	17.35
LOCATION	L0000226	VOLUME	379627.824	3742292.259	17.36
LOCATION	L0000227	VOLUME	379638.937	3742287.243	17.42
LOCATION	L0000228	VOLUME	379650.049	3742282.227	17.46
LOCATION	L0000229	VOLUME	379661.162	3742277.212	17.50
LOCATION	L0000230	VOLUME	379672.274	3742272.196	17.52
LOCATION	L0000231	VOLUME	379683.387	3742267.181	17.57
LOCATION	L0000232	VOLUME	379694.499	3742262.165	17.61
LOCATION	L0000233	VOLUME	379705.612	3742257.149	17.66
LOCATION	L0000234	VOLUME	379716.724	3742252.134	17.71
LOCATION	L0000235	VOLUME	379727.837	3742247.118	17.74
LOCATION	L0000236	VOLUME	379738.949	3742242.102	17.79
LOCATION	L0000237	VOLUME	379750.062	3742237.087	17.79
LOCATION	L0000238	VOLUME	379761.174	3742232.071	17.79
LOCATION	L0000239	VOLUME	379772.287	3742227.055	17.83
LOCATION	L0000240	VOLUME	379783.399	3742222.040	17.96
LOCATION	L0000241	VOLUME	379794.512	3742217.024	17.87
LOCATION	L0000242	VOLUME	379805.624	3742212.008	18.06
LOCATION	L0000243	VOLUME	379816.737	3742206.993	17.98
LOCATION	L0000244	VOLUME	379827.849	3742201.977	18.07
LOCATION	L0000245	VOLUME	379838.962	3742196.961	18.06
LOCATION	L0000246	VOLUME	379850.074	3742191.946	17.99
LOCATION	L0000247	VOLUME	379861.187	3742186.930	17.90
LOCATION	L0000248	VOLUME	379872.299	3742181.914	17.83
LOCATION	L0000249	VOLUME	379883.412	3742176.899	17.74
LOCATION	L0000250	VOLUME	379894.525	3742171.883	17.71
LOCATION	L0000251	VOLUME	379905.637	3742166.867	17.62
LOCATION	L0000252	VOLUME	379916.750	3742161.852	17.55
LOCATION	L0000253	VOLUME	379927.862	3742156.836	17.39
LOCATION	L0000254	VOLUME	379938.975	3742151.820	17.34
LOCATION	L0000255	VOLUME	379950.087	3742146.805	17.13
LOCATION	L0000256	VOLUME	379961.200	3742141.789	17.08
LOCATION	L0000257	VOLUME	379972.312	3742136.773	16.87
LOCATION	L0000258	VOLUME	379983.425	3742131.758	16.74
LOCATION	L0000259	VOLUME	379994.537	3742126.742	16.58
LOCATION	L0000260	VOLUME	380005.650	3742121.726	16.31

** End of LINE VOLUME Source ID = RDSEPE

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDON

** DESCRSRC Onsite Road

** PREFIX

** Length of Side = 3.66

** Configuration = Adjacent

** Emission Rate = 3.03E-06

```

** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 379454.691, 3742382.239, 17.39, 0.00, 1.70
** 379464.502, 3742475.511, 17.95, 0.00, 1.70
** -----
LOCATION L0000261      VOLUME  379454.882 3742384.058 17.47
LOCATION L0000262      VOLUME  379455.265 3742387.696 17.55
LOCATION L0000263      VOLUME  379455.647 3742391.333 17.63
LOCATION L0000264      VOLUME  379456.030 3742394.971 17.66
LOCATION L0000265      VOLUME  379456.413 3742398.608 17.68
LOCATION L0000266      VOLUME  379456.795 3742402.246 17.70
LOCATION L0000267      VOLUME  379457.178 3742405.883 17.71
LOCATION L0000268      VOLUME  379457.561 3742409.521 17.72
LOCATION L0000269      VOLUME  379457.943 3742413.158 17.74
LOCATION L0000270      VOLUME  379458.326 3742416.796 17.76
LOCATION L0000271      VOLUME  379458.709 3742420.433 17.78
LOCATION L0000272      VOLUME  379459.091 3742424.071 17.81
LOCATION L0000273      VOLUME  379459.474 3742427.708 17.84
LOCATION L0000274      VOLUME  379459.857 3742431.346 17.88
LOCATION L0000275      VOLUME  379460.239 3742434.983 17.87
LOCATION L0000276      VOLUME  379460.622 3742438.621 17.85
LOCATION L0000277      VOLUME  379461.004 3742442.258 17.82
LOCATION L0000278      VOLUME  379461.387 3742445.896 17.83
LOCATION L0000279      VOLUME  379461.770 3742449.534 17.84
LOCATION L0000280      VOLUME  379462.152 3742453.171 17.85
LOCATION L0000281      VOLUME  379462.535 3742456.809 17.87
LOCATION L0000282      VOLUME  379462.918 3742460.446 17.88
LOCATION L0000283      VOLUME  379463.300 3742464.084 17.89
LOCATION L0000284      VOLUME  379463.683 3742467.721 17.92
LOCATION L0000285      VOLUME  379464.066 3742471.359 17.95
LOCATION L0000286      VOLUME  379464.448 3742474.996 17.96
** End of LINE VOLUME Source ID = RDON
LOCATION IDLE          POINT    379480.057 3742467.434      17.820
** DESCRSRC Operational Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = RDSEPW
SRCPARAM L0000173      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000174      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000175      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000176      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000177      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000178      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000179      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000180      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000181      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000182      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000183      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000184      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000185      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000186      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000187      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000188      0.000000008868      0.00      5.67      2.79
SRCPARAM L0000189      0.000000008868      0.00      5.67      2.79

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SRCPARAM	L0000190	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000191	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000192	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000193	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000194	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000195	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000196	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000197	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000198	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000199	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000200	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000201	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000202	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000203	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000204	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000205	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000206	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000207	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000208	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000209	0.000000008868	0.00	5.67	2.79
SRCPARAM	L0000210	0.000000008868	0.00	5.67	2.79

*** LINE VOLUME Source ID = RDSEPE

SRCPARAM	L0000211	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000212	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000213	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000214	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000215	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000216	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000217	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000218	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000219	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000220	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000221	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000222	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000223	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000224	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000225	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000226	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000227	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000228	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000229	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000230	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000231	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000232	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000233	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000234	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000235	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000236	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000237	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000238	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000239	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000240	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000241	0.0000001698	0.00	5.67	0.85

SRCPARAM	L0000242	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000243	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000244	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000245	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000246	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000247	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000248	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000249	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000250	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000251	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000252	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000253	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000254	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000255	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000256	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000257	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000258	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000259	0.0000001698	0.00	5.67	0.85
SRCPARAM	L0000260	0.0000001698	0.00	5.67	0.85
** -----					
** LINE VOLUME Source ID = RDON					
SRCPARAM	L0000261	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000262	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000263	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000264	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000265	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000266	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000267	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000268	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000269	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000270	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000271	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000272	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000273	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000274	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000275	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000276	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000277	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000278	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000279	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000280	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000281	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000282	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000283	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000284	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000285	0.0000001165	0.00	1.70	0.85
SRCPARAM	L0000286	0.0000001165	0.00	1.70	0.85
** -----					
SRCPARAM	IDLE	0.000106	3.840	366.000	50.00000
0.100					
** Building Downwash **					
BUILDHGT	IDLE	12.19	12.19	12.19	12.19
12.19					

BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
XBADJ	IDLE	-83.91	-80.93	-75.50	-69.29	-61.11	-
51.08							
XBADJ	IDLE	-39.50	-26.72	-13.12	-3.49	-12.03	-
22.10							
XBADJ	IDLE	-31.51	-39.95	-47.18	-52.98	-57.17	-
59.62							
XBADJ	IDLE	-75.52	-92.15	-105.98	-116.60	-123.67	-
126.98							
XBADJ	IDLE	-126.43	-122.05	-113.95	-124.85	-134.10	-
139.27							
XBADJ	IDLE	-140.21	-136.89	-129.41	-118.00	-103.01	-
86.01							
YBADJ	IDLE	-60.68	-61.03	-58.58	-54.35	-48.47	-
41.12							
YBADJ	IDLE	-32.51	-22.92	-13.19	-4.19	5.61	
15.24							

50.42	YBADJ	IDLE	23.65	31.28	37.95	43.47	47.67	
41.12	YBADJ	IDLE	60.68	61.03	58.58	54.35	48.47	
15.24	YBADJ	IDLE	32.51	22.92	13.19	4.19	-5.61	-
50.42	YBADJ	IDLE	-23.65	-31.28	-37.95	-43.47	-47.67	-

URBANSRC ALL
 SRCGROUP ALL
 SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED Ops2022.rou

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.SFC

PROFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.PFL

SURFDATA 3167 2012 Hawthorne_Airport

UAIRDATA 3190 2012

PROFBASE 19.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST 6TH

RECTABLE 24 1ST 6TH

** Auto-Generated Plotfiles

PLOTFILE 24 ALL 1ST OPS2022.AD\24H1GALL.PLT 31

PLOTFILE 24 ALL 6TH OPS2022.AD\24H6GALL.PLT 32

PLOTFILE ANNUAL ALL OPS2022.AD\AN00GALL.PLT 33

SUMMFILE Ops2022.sum

OU FINISHED

**

** Project Parameters

** PROJCTN CoordinateSystemUTM

```
** DESCPTN   UTM: Universal Transverse Mercator
** DATUM     World Geodetic System 1984
** DTMRGN    Global Definition
** UNITS      m
** ZONE       11
** ZONEINX    0
**
```

* AERMOD (19191): Bridge Point South Bay VII - Operations DPM 2022-2023

* AERMET (16216):

* MODELING OPTIONS USED: RegDEFAULT CONC ELEV URBAN ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL

* FOR A TOTAL OF 13 RECEPTORS.

* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
---	---	--------------	-------	-------	-------	-----	-----	---------	--------

379329.00000	3742868.00000	0.00064	17.19	17.19	0.00	ANNUAL	ALL	00000005	
379564.00000	3742860.00000	0.00070	16.32	16.32	0.00	ANNUAL	ALL	00000005	
379704.00000	3742857.00000	0.00068	15.89	15.89	0.00	ANNUAL	ALL	00000005	
379871.00000	3742736.00000	0.00105	16.31	16.31	0.00	ANNUAL	ALL	00000005	
379991.00000	3742559.00000	0.00126	17.73	17.73	0.00	ANNUAL	ALL	00000005	
379616.00000	3742518.00000	0.00783	17.68	17.68	0.00	ANNUAL	ALL	00000005	
379695.00000	3742454.00000	0.00477	17.66	17.66	0.00	ANNUAL	ALL	00000005	
379615.00000	3742399.00000	0.00495	18.38	18.38	0.00	ANNUAL	ALL	00000005	
379737.00000	3742222.00000	0.00266	17.91	17.91	0.00	ANNUAL	ALL	00000005	
379615.00000	3742279.00000	0.00381	17.93	17.93	0.00	ANNUAL	ALL	00000005	
379521.00000	3742319.00000	0.00605	17.47	17.47	0.00	ANNUAL	ALL	00000005	
379417.00000	3742359.00000	0.00483	17.59	17.59	0.00	ANNUAL	ALL	00000005	
379337.00000	3742402.00000	0.00333	17.94	17.94	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3

** DEPUNIT g/m^2

09/30/20
16:31:40

APPENDIX D

AERMOD Model Years 2023 – 2038 Operational PM10 Printouts

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 9/30/2020
** File: C:\Vista Env\2020\20072 LA Sepulveda\AERMOD\Ops2023\Ops2023.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE Bridge Point South Bay VII - Operations DPM 2023-2038
  TITLETWO PM10 Exhaust
  MODELOPT DFAULT CONC
  AVERTIME 24 ANNUAL
  URBANOPT 9818605 Los_Angeles_County
  POLLUTID PM_10
  RUNORNOT RUN
  ERRORFIL Ops2023.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDSEPW
** DESCRSRC Sepulveda Bl West of Project
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 2.14E-07
** Vertical Dimension = 6.00
** SZINIT = 2.79
** Nodes = 2
** 379445.590, 3742373.655, 17.56, 0.00, 5.67
** 379029.123, 3742563.703, 18.87, 0.00, 5.67
** -----
**
LOCATION L0000287      VOLUME    379440.044 3742376.186 17.58
LOCATION L0000288      VOLUME    379428.953 3742381.247 17.63
LOCATION L0000289      VOLUME    379417.861 3742386.309 17.62
LOCATION L0000290      VOLUME    379406.769 3742391.370 17.68

```

LOCATION	L0000291	VOLUME	379395.678	3742396.432	17.67
LOCATION	L0000292	VOLUME	379384.586	3742401.493	17.72
LOCATION	L0000293	VOLUME	379373.494	3742406.555	17.74
LOCATION	L0000294	VOLUME	379362.403	3742411.616	17.77
LOCATION	L0000295	VOLUME	379351.311	3742416.678	17.77
LOCATION	L0000296	VOLUME	379340.219	3742421.739	17.81
LOCATION	L0000297	VOLUME	379329.127	3742426.801	17.83
LOCATION	L0000298	VOLUME	379318.036	3742431.862	17.85
LOCATION	L0000299	VOLUME	379306.944	3742436.924	17.88
LOCATION	L0000300	VOLUME	379295.852	3742441.985	17.91
LOCATION	L0000301	VOLUME	379284.761	3742447.047	17.90
LOCATION	L0000302	VOLUME	379273.669	3742452.108	17.91
LOCATION	L0000303	VOLUME	379262.577	3742457.170	17.92
LOCATION	L0000304	VOLUME	379251.485	3742462.231	17.99
LOCATION	L0000305	VOLUME	379240.394	3742467.293	18.05
LOCATION	L0000306	VOLUME	379229.302	3742472.355	18.05
LOCATION	L0000307	VOLUME	379218.210	3742477.416	18.10
LOCATION	L0000308	VOLUME	379207.119	3742482.478	18.10
LOCATION	L0000309	VOLUME	379196.027	3742487.539	18.14
LOCATION	L0000310	VOLUME	379184.935	3742492.601	18.14
LOCATION	L0000311	VOLUME	379173.843	3742497.662	18.20
LOCATION	L0000312	VOLUME	379162.752	3742502.724	18.20
LOCATION	L0000313	VOLUME	379151.660	3742507.785	18.28
LOCATION	L0000314	VOLUME	379140.568	3742512.847	18.30
LOCATION	L0000315	VOLUME	379129.477	3742517.908	18.39
LOCATION	L0000316	VOLUME	379118.385	3742522.970	18.41
LOCATION	L0000317	VOLUME	379107.293	3742528.031	18.48
LOCATION	L0000318	VOLUME	379096.202	3742533.093	18.52
LOCATION	L0000319	VOLUME	379085.110	3742538.154	18.59
LOCATION	L0000320	VOLUME	379074.018	3742543.216	18.63
LOCATION	L0000321	VOLUME	379062.926	3742548.277	18.69
LOCATION	L0000322	VOLUME	379051.835	3742553.339	18.74
LOCATION	L0000323	VOLUME	379040.743	3742558.400	18.80
LOCATION	L0000324	VOLUME	379029.651	3742563.462	18.85

** End of LINE VOLUME Source ID = RDSEPW

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDSEPE

** DESCRSRC Sepulveda Bl east of Project

** PREFIX

** Length of Side = 12.19

** Configuration = Adjacent

** Emission Rate = 5.39E-06

** Vertical Dimension = 1.83

** SZINIT = 0.85

** Nodes = 2

** 379455.580, 3742370.001, 17.56, 0.00, 5.67

** 380009.666, 3742119.914, 16.29, 0.00, 5.67

** -----

LOCATION	L0000325	VOLUME	379461.136	3742367.494	17.52
LOCATION	L0000326	VOLUME	379472.249	3742362.478	17.51
LOCATION	L0000327	VOLUME	379483.361	3742357.462	17.49
LOCATION	L0000328	VOLUME	379494.474	3742352.447	17.46
LOCATION	L0000329	VOLUME	379505.586	3742347.431	17.44

LOCATION	L0000330	VOLUME	379516.699	3742342.415	17.42
LOCATION	L0000331	VOLUME	379527.811	3742337.400	17.39
LOCATION	L0000332	VOLUME	379538.924	3742332.384	17.35
LOCATION	L0000333	VOLUME	379550.036	3742327.368	17.35
LOCATION	L0000334	VOLUME	379561.149	3742322.353	17.30
LOCATION	L0000335	VOLUME	379572.262	3742317.337	17.30
LOCATION	L0000336	VOLUME	379583.374	3742312.321	17.26
LOCATION	L0000337	VOLUME	379594.487	3742307.306	17.28
LOCATION	L0000338	VOLUME	379605.599	3742302.290	17.29
LOCATION	L0000339	VOLUME	379616.712	3742297.274	17.35
LOCATION	L0000340	VOLUME	379627.824	3742292.259	17.36
LOCATION	L0000341	VOLUME	379638.937	3742287.243	17.42
LOCATION	L0000342	VOLUME	379650.049	3742282.227	17.46
LOCATION	L0000343	VOLUME	379661.162	3742277.212	17.50
LOCATION	L0000344	VOLUME	379672.274	3742272.196	17.52
LOCATION	L0000345	VOLUME	379683.387	3742267.181	17.57
LOCATION	L0000346	VOLUME	379694.499	3742262.165	17.61
LOCATION	L0000347	VOLUME	379705.612	3742257.149	17.66
LOCATION	L0000348	VOLUME	379716.724	3742252.134	17.71
LOCATION	L0000349	VOLUME	379727.837	3742247.118	17.74
LOCATION	L0000350	VOLUME	379738.949	3742242.102	17.79
LOCATION	L0000351	VOLUME	379750.062	3742237.087	17.79
LOCATION	L0000352	VOLUME	379761.174	3742232.071	17.79
LOCATION	L0000353	VOLUME	379772.287	3742227.055	17.83
LOCATION	L0000354	VOLUME	379783.399	3742222.040	17.96
LOCATION	L0000355	VOLUME	379794.512	3742217.024	17.87
LOCATION	L0000356	VOLUME	379805.624	3742212.008	18.06
LOCATION	L0000357	VOLUME	379816.737	3742206.993	17.98
LOCATION	L0000358	VOLUME	379827.849	3742201.977	18.07
LOCATION	L0000359	VOLUME	379838.962	3742196.961	18.06
LOCATION	L0000360	VOLUME	379850.074	3742191.946	17.99
LOCATION	L0000361	VOLUME	379861.187	3742186.930	17.90
LOCATION	L0000362	VOLUME	379872.299	3742181.914	17.83
LOCATION	L0000363	VOLUME	379883.412	3742176.899	17.74
LOCATION	L0000364	VOLUME	379894.525	3742171.883	17.71
LOCATION	L0000365	VOLUME	379905.637	3742166.867	17.62
LOCATION	L0000366	VOLUME	379916.750	3742161.852	17.55
LOCATION	L0000367	VOLUME	379927.862	3742156.836	17.39
LOCATION	L0000368	VOLUME	379938.975	3742151.820	17.34
LOCATION	L0000369	VOLUME	379950.087	3742146.805	17.13
LOCATION	L0000370	VOLUME	379961.200	3742141.789	17.08
LOCATION	L0000371	VOLUME	379972.312	3742136.773	16.87
LOCATION	L0000372	VOLUME	379983.425	3742131.758	16.74
LOCATION	L0000373	VOLUME	379994.537	3742126.742	16.58
LOCATION	L0000374	VOLUME	380005.650	3742121.726	16.31

** End of LINE VOLUME Source ID = RDSEPE

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDON

** DESCRSRC Onsite Road

** PREFIX

** Length of Side = 3.66

** Configuration = Adjacent

** Emission Rate = 1.68E-06

```

** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 379454.691, 3742382.239, 17.39, 0.00, 1.70
** 379464.502, 3742475.511, 17.95, 0.00, 1.70
** -----
LOCATION L0000375      VOLUME  379454.882 3742384.058 17.47
LOCATION L0000376      VOLUME  379455.265 3742387.696 17.55
LOCATION L0000377      VOLUME  379455.647 3742391.333 17.63
LOCATION L0000378      VOLUME  379456.030 3742394.971 17.66
LOCATION L0000379      VOLUME  379456.413 3742398.608 17.68
LOCATION L0000380      VOLUME  379456.795 3742402.246 17.70
LOCATION L0000381      VOLUME  379457.178 3742405.883 17.71
LOCATION L0000382      VOLUME  379457.561 3742409.521 17.72
LOCATION L0000383      VOLUME  379457.943 3742413.158 17.74
LOCATION L0000384      VOLUME  379458.326 3742416.796 17.76
LOCATION L0000385      VOLUME  379458.709 3742420.433 17.78
LOCATION L0000386      VOLUME  379459.091 3742424.071 17.81
LOCATION L0000387      VOLUME  379459.474 3742427.708 17.84
LOCATION L0000388      VOLUME  379459.857 3742431.346 17.88
LOCATION L0000389      VOLUME  379460.239 3742434.983 17.87
LOCATION L0000390      VOLUME  379460.622 3742438.621 17.85
LOCATION L0000391      VOLUME  379461.004 3742442.258 17.82
LOCATION L0000392      VOLUME  379461.387 3742445.896 17.83
LOCATION L0000393      VOLUME  379461.770 3742449.534 17.84
LOCATION L0000394      VOLUME  379462.152 3742453.171 17.85
LOCATION L0000395      VOLUME  379462.535 3742456.809 17.87
LOCATION L0000396      VOLUME  379462.918 3742460.446 17.88
LOCATION L0000397      VOLUME  379463.300 3742464.084 17.89
LOCATION L0000398      VOLUME  379463.683 3742467.721 17.92
LOCATION L0000399      VOLUME  379464.066 3742471.359 17.95
LOCATION L0000400      VOLUME  379464.448 3742474.996 17.96
** End of LINE VOLUME Source ID = RDON
LOCATION IDLE          POINT      379480.057 3742467.434      17.820
** DESCRSRC Operational Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = RDSEPW
SRCPARAM L0000287      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000288      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000289      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000290      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000291      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000292      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000293      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000294      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000295      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000296      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000297      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000298      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000299      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000300      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000301      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000302      0.000000005632      0.00      5.67      2.79
SRCPARAM L0000303      0.000000005632      0.00      5.67      2.79

```

SRCPARAM	L0000304	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000305	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000306	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000307	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000308	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000309	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000310	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000311	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000312	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000313	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000314	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000315	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000316	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000317	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000318	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000319	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000320	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000321	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000322	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000323	0.000000005632	0.00	5.67	2.79
SRCPARAM	L0000324	0.000000005632	0.00	5.67	2.79

**

** LINE VOLUME Source ID = RDSEPE

SRCPARAM	L0000325	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000326	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000327	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000328	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000329	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000330	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000331	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000332	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000333	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000334	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000335	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000336	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000337	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000338	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000339	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000340	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000341	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000342	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000343	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000344	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000345	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000346	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000347	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000348	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000349	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000350	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000351	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000352	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000353	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000354	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000355	0.0000001078	0.00	5.67	0.85

SRCPARAM	L0000356	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000357	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000358	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000359	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000360	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000361	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000362	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000363	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000364	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000365	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000366	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000367	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000368	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000369	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000370	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000371	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000372	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000373	0.0000001078	0.00	5.67	0.85
SRCPARAM	L0000374	0.0000001078	0.00	5.67	0.85
** -----					
** LINE VOLUME Source ID = RDON					
SRCPARAM	L0000375	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000376	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000377	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000378	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000379	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000380	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000381	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000382	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000383	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000384	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000385	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000386	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000387	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000388	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000389	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000390	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000391	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000392	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000393	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000394	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000395	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000396	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000397	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000398	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000399	0.00000006462	0.00	1.70	0.85
SRCPARAM	L0000400	0.00000006462	0.00	1.70	0.85
** -----					
SRCPARAM	IDLE	0.000104	3.840	366.000	50.00000
0.100					
** Building Downwash **					
BUILDHGT	IDLE	12.19	12.19	12.19	12.19
12.19					

BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
XBADJ	IDLE	-83.91	-80.93	-75.50	-69.29	-61.11	-
51.08							
XBADJ	IDLE	-39.50	-26.72	-13.12	-3.49	-12.03	-
22.10							
XBADJ	IDLE	-31.51	-39.95	-47.18	-52.98	-57.17	-
59.62							
XBADJ	IDLE	-75.52	-92.15	-105.98	-116.60	-123.67	-
126.98							
XBADJ	IDLE	-126.43	-122.05	-113.95	-124.85	-134.10	-
139.27							
XBADJ	IDLE	-140.21	-136.89	-129.41	-118.00	-103.01	-
86.01							
YBADJ	IDLE	-60.68	-61.03	-58.58	-54.35	-48.47	-
41.12							
YBADJ	IDLE	-32.51	-22.92	-13.19	-4.19	5.61	
15.24							

50.42	YBADJ	IDLE	23.65	31.28	37.95	43.47	47.67	
41.12	YBADJ	IDLE	60.68	61.03	58.58	54.35	48.47	
15.24	YBADJ	IDLE	32.51	22.92	13.19	4.19	-5.61	-
50.42	YBADJ	IDLE	-23.65	-31.28	-37.95	-43.47	-47.67	-

URBANSRC ALL
 SRCGROUP ALL
 SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED Ops2023.rou

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.SFC

PROFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.PFL

SURFDATA 3167 2012 Hawthorne_Airport

UAIRDATA 3190 2012

PROFBASE 19.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST 6TH

RECTABLE 24 1ST 6TH

** Auto-Generated Plotfiles

PLOTFILE 24 ALL 1ST OPS2023.AD\24H1GALL.PLT 31

PLOTFILE 24 ALL 6TH OPS2023.AD\24H6GALL.PLT 32

PLOTFILE ANNUAL ALL OPS2023.AD\AN00GALL.PLT 33

SUMMFILE Ops2023.sum

OU FINISHED

**

** Project Parameters

** PROJCTN CoordinateSystemUTM

```
** DESCPTN   UTM: Universal Transverse Mercator
** DATUM     World Geodetic System 1984
** DTMRGN    Global Definition
** UNITS     m
** ZONE      11
** ZONEINX   0
**
```

* AERMOD (19191): Bridge Point South Bay VII - Operations DPM 2023-2038

* AERMET (16216):

* MODELING OPTIONS USED: RegDEFAULT CONC ELEV URBAN ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL

* FOR A TOTAL OF 13 RECEPTORS.

* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
379329.00000	3742868.00000	0.00062	17.19	17.19	0.00	ANNUAL	ALL	00000005	
379564.00000	3742860.00000	0.00067	16.32	16.32	0.00	ANNUAL	ALL	00000005	
379704.00000	3742857.00000	0.00066	15.89	15.89	0.00	ANNUAL	ALL	00000005	
379871.00000	3742736.00000	0.00101	16.31	16.31	0.00	ANNUAL	ALL	00000005	
379991.00000	3742559.00000	0.00122	17.73	17.73	0.00	ANNUAL	ALL	00000005	
379616.00000	3742518.00000	0.00761	17.68	17.68	0.00	ANNUAL	ALL	00000005	
379695.00000	3742454.00000	0.00460	17.66	17.66	0.00	ANNUAL	ALL	00000005	
379615.00000	3742399.00000	0.00471	18.38	18.38	0.00	ANNUAL	ALL	00000005	
379737.00000	3742222.00000	0.00218	17.91	17.91	0.00	ANNUAL	ALL	00000005	
379615.00000	3742279.00000	0.00326	17.93	17.93	0.00	ANNUAL	ALL	00000005	
379521.00000	3742319.00000	0.00549	17.47	17.47	0.00	ANNUAL	ALL	00000005	
379417.00000	3742359.00000	0.00450	17.59	17.59	0.00	ANNUAL	ALL	00000005	
379337.00000	3742402.00000	0.00316	17.94	17.94	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3

** DEPUNIT g/m^2

09/30/20
16:50:15

APPENDIX E

AERMOD Model Years 2038 – 2051 Operational PM10 Printouts

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 9/30/2020
** File: C:\Vista Env\2020\20072 LA Sepulveda\AERMOD\Ops2038\Ops2038.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE Bridge Point South Bay VII - Operations DPM 2038-2051
  TITLETWO PM10 Exhaust
  MODELOPT DFAULT CONC
  AVERTIME 24 ANNUAL
  URBANOPT 9818605 Los_Angeles_County
  POLLUTID PM_10
  RUNORNOT RUN
  ERRORFIL Ops2038.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDSEPW
** DESCRSRC Sepulveda Bl West of Project
** PREFIX
** Length of Side = 12.19
** Configuration = Adjacent
** Emission Rate = 1.84E-07
** Vertical Dimension = 6.00
** SZINIT = 2.79
** Nodes = 2
** 379445.590, 3742373.655, 17.56, 0.00, 5.67
** 379029.123, 3742563.703, 18.87, 0.00, 5.67
** -----
**
LOCATION L0000287      VOLUME    379440.044 3742376.186 17.58
LOCATION L0000288      VOLUME    379428.953 3742381.247 17.63
LOCATION L0000289      VOLUME    379417.861 3742386.309 17.62
LOCATION L0000290      VOLUME    379406.769 3742391.370 17.68

```

LOCATION	L0000291	VOLUME	379395.678	3742396.432	17.67
LOCATION	L0000292	VOLUME	379384.586	3742401.493	17.72
LOCATION	L0000293	VOLUME	379373.494	3742406.555	17.74
LOCATION	L0000294	VOLUME	379362.403	3742411.616	17.77
LOCATION	L0000295	VOLUME	379351.311	3742416.678	17.77
LOCATION	L0000296	VOLUME	379340.219	3742421.739	17.81
LOCATION	L0000297	VOLUME	379329.127	3742426.801	17.83
LOCATION	L0000298	VOLUME	379318.036	3742431.862	17.85
LOCATION	L0000299	VOLUME	379306.944	3742436.924	17.88
LOCATION	L0000300	VOLUME	379295.852	3742441.985	17.91
LOCATION	L0000301	VOLUME	379284.761	3742447.047	17.90
LOCATION	L0000302	VOLUME	379273.669	3742452.108	17.91
LOCATION	L0000303	VOLUME	379262.577	3742457.170	17.92
LOCATION	L0000304	VOLUME	379251.485	3742462.231	17.99
LOCATION	L0000305	VOLUME	379240.394	3742467.293	18.05
LOCATION	L0000306	VOLUME	379229.302	3742472.355	18.05
LOCATION	L0000307	VOLUME	379218.210	3742477.416	18.10
LOCATION	L0000308	VOLUME	379207.119	3742482.478	18.10
LOCATION	L0000309	VOLUME	379196.027	3742487.539	18.14
LOCATION	L0000310	VOLUME	379184.935	3742492.601	18.14
LOCATION	L0000311	VOLUME	379173.843	3742497.662	18.20
LOCATION	L0000312	VOLUME	379162.752	3742502.724	18.20
LOCATION	L0000313	VOLUME	379151.660	3742507.785	18.28
LOCATION	L0000314	VOLUME	379140.568	3742512.847	18.30
LOCATION	L0000315	VOLUME	379129.477	3742517.908	18.39
LOCATION	L0000316	VOLUME	379118.385	3742522.970	18.41
LOCATION	L0000317	VOLUME	379107.293	3742528.031	18.48
LOCATION	L0000318	VOLUME	379096.202	3742533.093	18.52
LOCATION	L0000319	VOLUME	379085.110	3742538.154	18.59
LOCATION	L0000320	VOLUME	379074.018	3742543.216	18.63
LOCATION	L0000321	VOLUME	379062.926	3742548.277	18.69
LOCATION	L0000322	VOLUME	379051.835	3742553.339	18.74
LOCATION	L0000323	VOLUME	379040.743	3742558.400	18.80
LOCATION	L0000324	VOLUME	379029.651	3742563.462	18.85

** End of LINE VOLUME Source ID = RDSEPW

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDSEPE

** DESCRSRC Sepulveda Bl east of Project

** PREFIX

** Length of Side = 12.19

** Configuration = Adjacent

** Emission Rate = 4.65E-06

** Vertical Dimension = 1.83

** SZINIT = 0.85

** Nodes = 2

** 379455.580, 3742370.001, 17.56, 0.00, 5.67

** 380009.666, 3742119.914, 16.29, 0.00, 5.67

** -----

LOCATION	L0000325	VOLUME	379461.136	3742367.494	17.52
LOCATION	L0000326	VOLUME	379472.249	3742362.478	17.51
LOCATION	L0000327	VOLUME	379483.361	3742357.462	17.49
LOCATION	L0000328	VOLUME	379494.474	3742352.447	17.46
LOCATION	L0000329	VOLUME	379505.586	3742347.431	17.44

LOCATION	L0000330	VOLUME	379516.699	3742342.415	17.42
LOCATION	L0000331	VOLUME	379527.811	3742337.400	17.39
LOCATION	L0000332	VOLUME	379538.924	3742332.384	17.35
LOCATION	L0000333	VOLUME	379550.036	3742327.368	17.35
LOCATION	L0000334	VOLUME	379561.149	3742322.353	17.30
LOCATION	L0000335	VOLUME	379572.262	3742317.337	17.30
LOCATION	L0000336	VOLUME	379583.374	3742312.321	17.26
LOCATION	L0000337	VOLUME	379594.487	3742307.306	17.28
LOCATION	L0000338	VOLUME	379605.599	3742302.290	17.29
LOCATION	L0000339	VOLUME	379616.712	3742297.274	17.35
LOCATION	L0000340	VOLUME	379627.824	3742292.259	17.36
LOCATION	L0000341	VOLUME	379638.937	3742287.243	17.42
LOCATION	L0000342	VOLUME	379650.049	3742282.227	17.46
LOCATION	L0000343	VOLUME	379661.162	3742277.212	17.50
LOCATION	L0000344	VOLUME	379672.274	3742272.196	17.52
LOCATION	L0000345	VOLUME	379683.387	3742267.181	17.57
LOCATION	L0000346	VOLUME	379694.499	3742262.165	17.61
LOCATION	L0000347	VOLUME	379705.612	3742257.149	17.66
LOCATION	L0000348	VOLUME	379716.724	3742252.134	17.71
LOCATION	L0000349	VOLUME	379727.837	3742247.118	17.74
LOCATION	L0000350	VOLUME	379738.949	3742242.102	17.79
LOCATION	L0000351	VOLUME	379750.062	3742237.087	17.79
LOCATION	L0000352	VOLUME	379761.174	3742232.071	17.79
LOCATION	L0000353	VOLUME	379772.287	3742227.055	17.83
LOCATION	L0000354	VOLUME	379783.399	3742222.040	17.96
LOCATION	L0000355	VOLUME	379794.512	3742217.024	17.87
LOCATION	L0000356	VOLUME	379805.624	3742212.008	18.06
LOCATION	L0000357	VOLUME	379816.737	3742206.993	17.98
LOCATION	L0000358	VOLUME	379827.849	3742201.977	18.07
LOCATION	L0000359	VOLUME	379838.962	3742196.961	18.06
LOCATION	L0000360	VOLUME	379850.074	3742191.946	17.99
LOCATION	L0000361	VOLUME	379861.187	3742186.930	17.90
LOCATION	L0000362	VOLUME	379872.299	3742181.914	17.83
LOCATION	L0000363	VOLUME	379883.412	3742176.899	17.74
LOCATION	L0000364	VOLUME	379894.525	3742171.883	17.71
LOCATION	L0000365	VOLUME	379905.637	3742166.867	17.62
LOCATION	L0000366	VOLUME	379916.750	3742161.852	17.55
LOCATION	L0000367	VOLUME	379927.862	3742156.836	17.39
LOCATION	L0000368	VOLUME	379938.975	3742151.820	17.34
LOCATION	L0000369	VOLUME	379950.087	3742146.805	17.13
LOCATION	L0000370	VOLUME	379961.200	3742141.789	17.08
LOCATION	L0000371	VOLUME	379972.312	3742136.773	16.87
LOCATION	L0000372	VOLUME	379983.425	3742131.758	16.74
LOCATION	L0000373	VOLUME	379994.537	3742126.742	16.58
LOCATION	L0000374	VOLUME	380005.650	3742121.726	16.31

** End of LINE VOLUME Source ID = RDSEPE

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = RDON

** DESCRSRC Onsite Road

** PREFIX

** Length of Side = 3.66

** Configuration = Adjacent

** Emission Rate = 1.3E-06

```

** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 2
** 379454.691, 3742382.239, 17.39, 0.00, 1.70
** 379464.502, 3742475.511, 17.95, 0.00, 1.70
** -----
LOCATION L0000375      VOLUME  379454.882 3742384.058 17.47
LOCATION L0000376      VOLUME  379455.265 3742387.696 17.55
LOCATION L0000377      VOLUME  379455.647 3742391.333 17.63
LOCATION L0000378      VOLUME  379456.030 3742394.971 17.66
LOCATION L0000379      VOLUME  379456.413 3742398.608 17.68
LOCATION L0000380      VOLUME  379456.795 3742402.246 17.70
LOCATION L0000381      VOLUME  379457.178 3742405.883 17.71
LOCATION L0000382      VOLUME  379457.561 3742409.521 17.72
LOCATION L0000383      VOLUME  379457.943 3742413.158 17.74
LOCATION L0000384      VOLUME  379458.326 3742416.796 17.76
LOCATION L0000385      VOLUME  379458.709 3742420.433 17.78
LOCATION L0000386      VOLUME  379459.091 3742424.071 17.81
LOCATION L0000387      VOLUME  379459.474 3742427.708 17.84
LOCATION L0000388      VOLUME  379459.857 3742431.346 17.88
LOCATION L0000389      VOLUME  379460.239 3742434.983 17.87
LOCATION L0000390      VOLUME  379460.622 3742438.621 17.85
LOCATION L0000391      VOLUME  379461.004 3742442.258 17.82
LOCATION L0000392      VOLUME  379461.387 3742445.896 17.83
LOCATION L0000393      VOLUME  379461.770 3742449.534 17.84
LOCATION L0000394      VOLUME  379462.152 3742453.171 17.85
LOCATION L0000395      VOLUME  379462.535 3742456.809 17.87
LOCATION L0000396      VOLUME  379462.918 3742460.446 17.88
LOCATION L0000397      VOLUME  379463.300 3742464.084 17.89
LOCATION L0000398      VOLUME  379463.683 3742467.721 17.92
LOCATION L0000399      VOLUME  379464.066 3742471.359 17.95
LOCATION L0000400      VOLUME  379464.448 3742474.996 17.96
** End of LINE VOLUME Source ID = RDON
LOCATION IDLE          POINT      379480.057 3742467.434      17.820
** DESCRSRC Operational Truck Idling
** Source Parameters **
** LINE VOLUME Source ID = RDSEPW
SRCPARAM L0000287      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000288      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000289      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000290      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000291      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000292      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000293      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000294      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000295      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000296      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000297      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000298      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000299      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000300      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000301      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000302      0.000000004842      0.00      5.67      2.79
SRCPARAM L0000303      0.000000004842      0.00      5.67      2.79

```

SRCPARAM	L0000304	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000305	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000306	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000307	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000308	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000309	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000310	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000311	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000312	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000313	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000314	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000315	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000316	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000317	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000318	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000319	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000320	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000321	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000322	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000323	0.000000004842	0.00	5.67	2.79
SRCPARAM	L0000324	0.000000004842	0.00	5.67	2.79

**

** LINE VOLUME Source ID = RDSEPE

SRCPARAM	L0000325	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000326	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000327	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000328	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000329	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000330	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000331	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000332	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000333	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000334	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000335	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000336	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000337	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000338	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000339	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000340	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000341	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000342	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000343	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000344	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000345	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000346	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000347	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000348	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000349	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000350	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000351	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000352	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000353	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000354	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000355	0.000000093	0.00	5.67	0.85

SRCPARAM	L0000356	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000357	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000358	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000359	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000360	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000361	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000362	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000363	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000364	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000365	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000366	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000367	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000368	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000369	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000370	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000371	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000372	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000373	0.000000093	0.00	5.67	0.85
SRCPARAM	L0000374	0.000000093	0.00	5.67	0.85
** -----					
** LINE VOLUME Source ID = RDON					
SRCPARAM	L0000375	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000376	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000377	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000378	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000379	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000380	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000381	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000382	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000383	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000384	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000385	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000386	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000387	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000388	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000389	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000390	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000391	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000392	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000393	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000394	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000395	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000396	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000397	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000398	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000399	0.00000005	0.00	1.70	0.85
SRCPARAM	L0000400	0.00000005	0.00	1.70	0.85
** -----					
SRCPARAM	IDLE	0.000104	3.840	366.000	50.00000
0.100					
** Building Downwash **					
BUILDHGT	IDLE	12.19	12.19	12.19	12.19
12.19					

BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDHGT	IDLE	12.19	12.19	12.19	12.19	12.19	
12.19							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDWID	IDLE	128.34	146.13	161.37	171.72	176.84	
176.60							
BUILDWID	IDLE	170.98	160.17	145.63	159.42	173.08	
181.49							
BUILDWID	IDLE	185.88	184.78	178.06	165.93	148.76	
127.07							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
BUILDLN	IDLE	159.42	173.08	181.49	185.88	184.78	
178.06							
BUILDLN	IDLE	165.93	148.76	127.07	128.34	146.13	
161.37							
BUILDLN	IDLE	171.72	176.84	176.60	170.98	160.17	
145.63							
XBADJ	IDLE	-83.91	-80.93	-75.50	-69.29	-61.11	-
51.08							
XBADJ	IDLE	-39.50	-26.72	-13.12	-3.49	-12.03	-
22.10							
XBADJ	IDLE	-31.51	-39.95	-47.18	-52.98	-57.17	-
59.62							
XBADJ	IDLE	-75.52	-92.15	-105.98	-116.60	-123.67	-
126.98							
XBADJ	IDLE	-126.43	-122.05	-113.95	-124.85	-134.10	-
139.27							
XBADJ	IDLE	-140.21	-136.89	-129.41	-118.00	-103.01	-
86.01							
YBADJ	IDLE	-60.68	-61.03	-58.58	-54.35	-48.47	-
41.12							
YBADJ	IDLE	-32.51	-22.92	-13.19	-4.19	5.61	
15.24							

50.42	YBADJ	IDLE	23.65	31.28	37.95	43.47	47.67	
41.12	YBADJ	IDLE	60.68	61.03	58.58	54.35	48.47	
15.24	YBADJ	IDLE	32.51	22.92	13.19	4.19	-5.61	-
50.42	YBADJ	IDLE	-23.65	-31.28	-37.95	-43.47	-47.67	-

URBANSRC ALL
 SRCGROUP ALL
 SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED Ops2038.rou

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.SFC

PROFFILE ..\HawthorneAirportADJU\KHHR_V9_ADJU\KHHR_v9.PFL

SURFDATA 3167 2012 Hawthorne_Airport

UAIRDATA 3190 2012

PROFBASE 19.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST 6TH

RECTABLE 24 1ST 6TH

** Auto-Generated Plotfiles

PLOTFILE 24 ALL 1ST OPS2038.AD\24H1GALL.PLT 31

PLOTFILE 24 ALL 6TH OPS2038.AD\24H6GALL.PLT 32

PLOTFILE ANNUAL ALL OPS2038.AD\AN00GALL.PLT 33

SUMMFILE Ops2038.sum

OU FINISHED

**

** Project Parameters

** PROJCTN CoordinateSystemUTM

```
** DESCPTN   UTM: Universal Transverse Mercator
** DATUM     World Geodetic System 1984
** DTMRGN    Global Definition
** UNITS     m
** ZONE      11
** ZONEINX   0
**
```

* AERMOD (19191): Bridge Point South Bay VII - Operations DPM 2038-2051

* AERMET (16216):

* MODELING OPTIONS USED: RegDEFAULT CONC ELEV URBAN ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL

* FOR A TOTAL OF 13 RECEPTORS.

* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
379329.00000	3742868.00000	0.00062	17.19	17.19	0.00	ANNUAL	ALL	00000005	
379564.00000	3742860.00000	0.00067	16.32	16.32	0.00	ANNUAL	ALL	00000005	
379704.00000	3742857.00000	0.00065	15.89	15.89	0.00	ANNUAL	ALL	00000005	
379871.00000	3742736.00000	0.00101	16.31	16.31	0.00	ANNUAL	ALL	00000005	
379991.00000	3742559.00000	0.00121	17.73	17.73	0.00	ANNUAL	ALL	00000005	
379616.00000	3742518.00000	0.00759	17.68	17.68	0.00	ANNUAL	ALL	00000005	
379695.00000	3742454.00000	0.00458	17.66	17.66	0.00	ANNUAL	ALL	00000005	
379615.00000	3742399.00000	0.00467	18.38	18.38	0.00	ANNUAL	ALL	00000005	
379737.00000	3742222.00000	0.00207	17.91	17.91	0.00	ANNUAL	ALL	00000005	
379615.00000	3742279.00000	0.00314	17.93	17.93	0.00	ANNUAL	ALL	00000005	
379521.00000	3742319.00000	0.00537	17.47	17.47	0.00	ANNUAL	ALL	00000005	
379417.00000	3742359.00000	0.00444	17.59	17.59	0.00	ANNUAL	ALL	00000005	
379337.00000	3742402.00000	0.00313	17.94	17.94	0.00	ANNUAL	ALL	00000005	

** CONCUNIT ug/m^3

** DEPUNIT g/m^2

09/30/20
18:13:40