



Seneca Road

ENERGY ANALYSIS

CITY OF ADELANTO

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15902-02 EA Report

TABLE OF CONTENTS

TABLE OF CONTENTS..... I

APPENDICES..... II

LIST OF EXHIBITS..... II

LIST OF TABLES II

LIST OF ABBREVIATED TERMS III

EXECUTIVE SUMMARY 1

 ES.1 Summary of Findings..... 1

 ES.2 Project Requirements 1

1 INTRODUCTION..... 3

 1.1 Site Location..... 3

 1.2 Project Description..... 3

2 EXISTING CONDITIONS 7

 2.1 Overview 7

 2.2 Electricity..... 10

 2.3 Natural Gas 11

 2.4 Transportation Energy Resources 14

3 REGULATORY BACKGROUND..... 17

 3.1 Federal Regulations..... 17

 3.2 California Regulations 17

4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES 23

 4.1 Evaluation Criteria..... 23

 4.2 Methodology..... 23

 4.3 Construction Energy Demands 24

 4.4 Operational Energy Demands 31

 4.5 Summary 33

5 CONCLUSIONS..... 37

6 REFERENCES..... 41

7 CERTIFICATIONS..... 44

APPENDICES

APPENDIX 4.1: CALEEMOD EMISSIONS MODEL OUTPUTS

APPENDIX 4.2: EMFAC2021

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 4
EXHIBIT 1-B: SITE PLAN..... 5

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS 1
TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2022) 9
TABLE 2-2: SCE 2022 POWER CONTENT MIX 11
TABLE 4-1: CONSTRUCTION DURATION 24
TABLE 4-2: CONSTRUCTION POWER COST 25
TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE 25
TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS..... 26
TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES 27
TABLE 4-6: CONSTRUCTION TRIP ASSUMPTIONS 28
TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES 29
TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES..... 30
TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION 32
TABLE 4-10: PROJECT ANNUAL OPERATIONAL NATURAL GAS DEMAND SUMMARY 33

LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	<i>Seneca Road Air Quality Impact Analysis</i>
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Adelanto
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks
MDV	Medium Duty Trucks
MHDT	Medium-Heavy Duty Trucks
MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization

PG&E	Pacific Gas and Electric
Project	Seneca Road
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
TEA-21	Transportation Equity Act for the 21 st Century
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Seneca Road Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Statute and Guidelines (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	<i>Less Than Significant</i>	<i>n/a</i>
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	<i>Less Than Significant</i>	<i>n/a</i>

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21)
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 5 of this report.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Seneca Road Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Adelanto (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed Seneca Road Project is located at the southeast corner of Pearmain Street and Seneca Road (APN 3103-511-08) in the City of Adelanto as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of a 4,700-sf strip retail plaza, a 4,700-sf office, a 139,000-sf self-storage building, and 68 RV parking spaces on approximately 8.75 acres, as shown in Exhibit 1-B. The Project is anticipated to have an Opening Year of 2026.

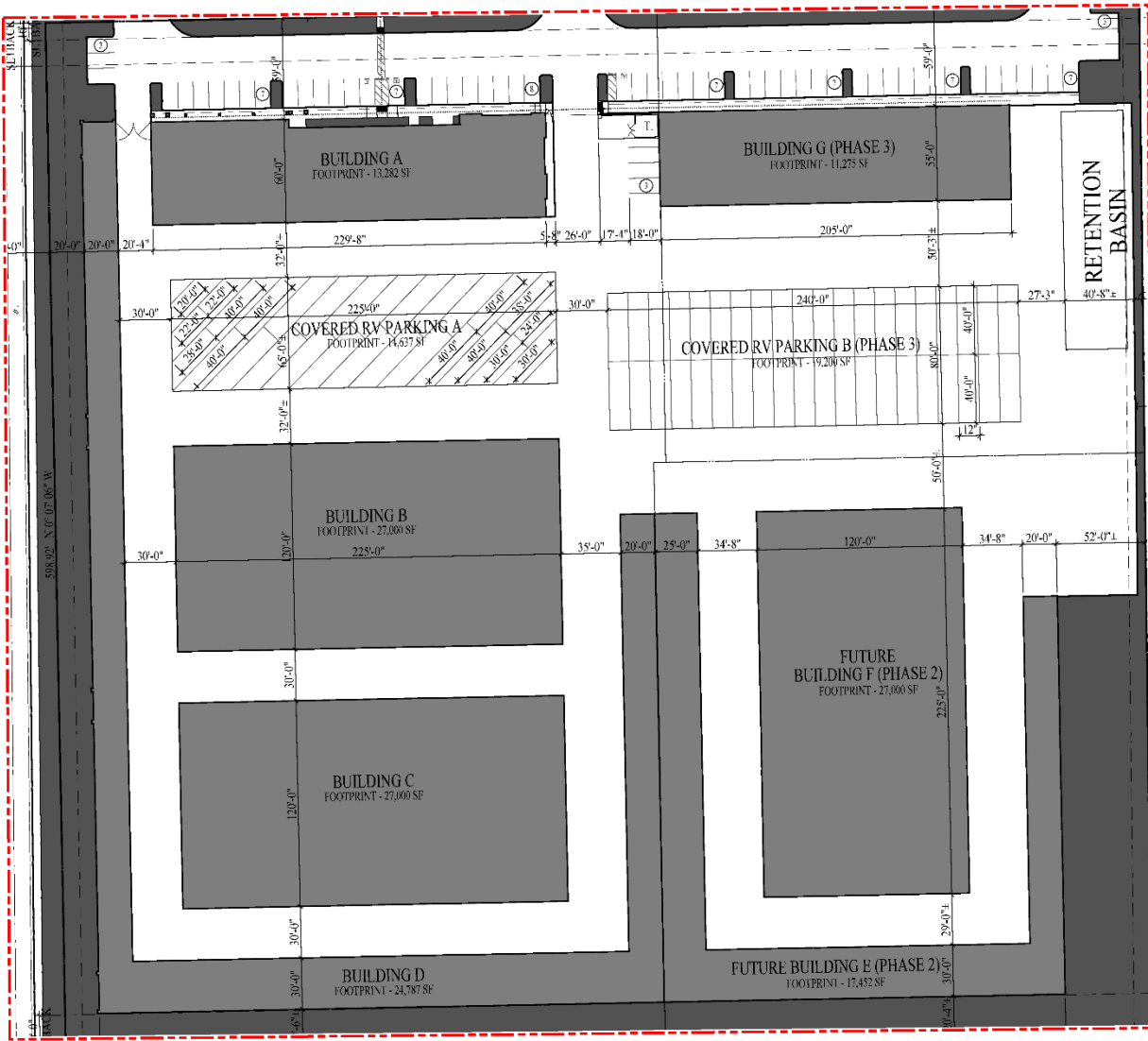
EXHIBIT 1-A: LOCATION MAP



LEGEND:
N
[Red dashed box] Site Boundary

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EXHIBIT 1-B: SITE PLAN



LEGEND:
 N
 Site Boundary

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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California’s estimated total energy consumption and natural gas consumption is from 2021, released by the United States (U.S.) Energy Information Administration’s (EIA) California State Profile and Energy Estimates in 2021 and included (2):

As of 2021, approximately 7,359 trillion British Thermal Unit (BTU) of energy was consumed

As of 2021, approximately 605 million barrels of petroleum

As of 2022, approximately 2,059 billion cubic feet of natural gas

As of 2022, approximately 1,322 thousand short tons of coal

According to the EIA, in 2022 the U.S. petroleum consumption comprised about 90% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (3). In 2022, about 251,923 million gallons (or about 5.99 million barrels) of finished petroleum products were consumed in the U.S., an average of about 690 million gallons per day (or about 16.4 million barrels per day) (4). In 2021, California consumed approximately 12,157 million gallons in motor gasoline (33.31 million per day) and approximately 3,541 million gallons of diesel fuel (9.7 million per day) (5).

The most recent data provided by the EIA for energy use in California is reported from 2021 and provided by demand sectors as follows:

Approximately 37.8% transportation sector

Approximately 23.2% industrial sector

Approximately 20.0% residential sector

Approximately 19.0% commercial sector (6)

According to the EIA, California used approximately 247,250 gigawatt hours of electricity in 2021 (7). By sector in 2021, residential uses utilized 36.5% of the state’s electricity, followed by 43.9% for commercial uses, 19.2% for industrial uses, and 0.3% for transportation. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building (7).

According to the EIA, California used approximately 200,871 million therms of natural gas in 2021 (8). In 2021 (the most recent year for which data is available), by sector, industrial uses utilized 33% of the state’s natural gas, followed by 30% used as fuel in the electric power sector, 21% from residential, 11% from commercial, 1% from transportation uses and the remaining 3% was utilized for the operations, processing and production of natural gas itself (8). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas (8).

In 2022, total system electric generation for California was 287,220 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 203,257 GWh which accounted for approximately 71% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (17%) (9). Natural gas is the main source for electricity generation at 47.46% of the total in-state electric generation system power as shown in Table 2-1.

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (10):

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.

As indicated below, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2022)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	273	0.13%	181	5,716	5,897	6,170	2.15%
Natural Gas	96,457	47.46%	44	7,994	8,038	104,495	36.38%
Oil	65	0.03%	-	-	-	65	0.2%
Other (Waste Heat/Petroleum Coke)	315	0.15%	-	-	-	315	0.11%
Unspecified	-	0.0%	12,485	7,943	20,428	20,428	7.11%
Total Thermal and Unspecified	97,110	47.78%	12,710	21,653	34,363	121,473	45.77%
Nuclear	17,627	8.67%	397	8,342	8,739	26,366	9.18%
Large Hydro	14,607	7.19%	10,803	1,118	11,921	26,528	9.24%
Biomass	5,366	2.64%	771	25	797	6,162	2.15%
Geothermal	11,110	5.47%	253	2,048	2,301	13,412	4.67%
Small Hydro	3,005	1.48%	211	13	225	3,230	1.12%
Solar	40,494	19.92%	231	8,225	8,456	48,950	17.04%
Wind	13,938	6.86%	8,804	8,357	17,161	31,099	10.83%
Total Non-GHG and Renewables	106,147	52.22%	21,471	28,129	49,599	155,747	54.23%
SYSTEM TOTALS	203,257	100.0%	34,180	49,782	83,962	287,220	100.0%

Source: CECs 2022 Total System Electric Generation

2.2 ELECTRICITY

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts. Similarly, the subsequent 2023 IEPR provides information and policy recommendations on advancing a clean, reliable, and affordable energy system (11).

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (12).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2022 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (13).

Table 2-2, SCE's specific proportional shares of electricity sources in 2022. As indicated in Table 2-2, the 2022 SCE Power Mix has renewable energy at 33.2% of the overall energy resources. Geothermal resources are at 5.7%, wind power is at 9.8%, large hydroelectric sources are at 3.4%, solar energy is at 17.0%, and coal is at 0% (14).

TABLE 2-2: SCE 2022 POWER CONTENT MIX

Energy Resources	2022 SCE Power Mix
Eligible Renewable	33.2%
Biomass & Waste	0.1%
Geothermal	5.7%
Eligible Hydroelectric	0.5%
Solar	17.0%
Wind	9.8%
Coal	0.0%
Large Hydroelectric	3.4%
Natural Gas	24.7%
Nuclear	8.3%
Other	0.1%
Unspecified Sources of power*	30.3%
Total	100%

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.

The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas

customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild

Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the

backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California.” (15)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (6), and those vehicles consume an estimated 17.2 billion gallons of fuel each year¹. Gasoline (and other vehicle fuels) are

¹ Fuel consumptions estimated utilizing information from EMFAC2021.

commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (6). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 8% of the nation's total consumption. The State is the largest U.S. consumer of motor gasoline and jet fuel, and 83% of the petroleum consumed in California is used in the transportation sector (16).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2021, about 33% of the natural gas delivered to consumers went to the State's industrial sector, and about 31% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the State's utility-scale electricity generation in 2021. The residential sector, where three-fifths of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (16).

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2023 IEPR was adopted February 2024, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2023 IEPR builds on the 2022

IEPR's framework for embedding equity and environmental justice at the CEC and the California Energy Planning Library which allows for easier access to energy data and analytics for a wide range of users. Additionally, energy reliability, western electricity integration, gasoline cost factors and price spikes, the role of hydrogen in California's clean energy future, fossil gas transition and distributed energy resources are topics discussed within the 2023 IEPR (17).

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (18). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (19):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be

provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.

- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
 - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).

- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner’s or owner representative’s project requirements (5.410.2).

3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

3.2.5 CALIFORNIA’S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California’s Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 44% of total retail sales by 2024 (20).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California’s commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 45% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

3.2.7 100 PERCENT CLEAN ENERGY ACT OF 2018 (SB 100)

In September 2018, the legislature approved, and the Governor signed SB 100, which builds on the targets established in SB 1078 and SB 350. Most notably, SB 100 sets a goal of powering all

retail electricity sold in California with renewable and zero-carbon resources. Additionally, SB 100 updates the interim renewables target from 50% to 60% by 2030.

3.2.8 EXECUTIVE ORDER N-79-20 AND ADVANCED CLEAN CARS II

On August 25, 2022 CARB approved the Advanced Clean Cars II rule, which codifies the goals set out in Executive Order N-79-20 and establishes a year-by-year roadmap such that by 2035, 100% of new cars and light trucks sold in California will be zero-emission vehicles. Under this regulation, automakers are required to accelerate deliveries of zero-emission light-duty vehicles, beginning with model year 2026. CARB estimates that between 2026 and 2040, the regulation would reduce GHG emissions by a cumulative 395 million metric tons, equivalent to reducing petroleum use by 915 million barrels.

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

Per Appendix F of the *State CEQA Guidelines* (21), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (1), this report analyzes the project's anticipated energy use during construction and operations to determine if the Project would:

- 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 or energy efficiency.

4.2 METHODOLOGY

Information from the CalEEMod Version 2022.1 outputs for the *Seneca Road Air Quality Impact Analysis* (AQIA) (22) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CAL EEMOD

In May 2022 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the MDAQMD, released the latest version of CalEEMod, version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (23). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendix 4.1.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMISSIONS FACTOR model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of the analysis, the 2025 and 2026 analysis years were utilized to determine the average vehicle fuel

economy used throughout the duration of the Project. Outputs from the EMFAC2021 model runs are provided in Appendix 4.2.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

CONSTRUCTION DURATION

Construction is anticipated to commence in April 2025 and will last through December 2026 (22). The construction schedule utilized in the analysis, shown in Table 4-1, represents a “worst-case” analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (25).

TABLE 4-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Days
Site Preparation	4/1/2025	4/24/2025	18
Grading	4/25/2025	6/13/2025	36
Building Construction	6/16/2025	12/30/2026	403
Paving	11/10/2026	12/30/2026	37
Architectural Coating	11/10/2026	12/30/2026	37

Source: Appendix 4.1.

PROJECT CONSTRUCTION POWER COST

The *2024 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of \$2.66, which was used to calculate the Project’s total construction power cost (26). As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$22,611.96.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Strip Retail Plaza	\$2.66	4.700	20	\$250.04
Office	\$2.66	4.700	20	\$250.04
RV Park	\$2.66	33.837	20	\$1,800.13
Self-Storage	\$2.66	139.000	20	\$7,394.80
Parking Lot	\$2.66	23.087	20	\$1,228.22
Other Asphalt Surfaces	\$2.66	175.721	20	\$9,348.36
Landscape	\$2.66	43.992	20	\$2,340.37
CONSTRUCTION POWER COST				\$22,611.96

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule was used to determine the Project's electrical usage. As of January 1, 2024, SCE's general service rate is \$0.14 per kilowatt hours (kWh) of electricity for industrial services (27). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 161,514 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Strip Retail Plaza	\$0.14	1,786
Office	\$0.14	1,786
RV Park	\$0.14	12,858
Self-Storage	\$0.14	52,820
Parking Lot	\$0.14	8,773
Other Asphalt Surfaces	\$0.14	66,774
Landscape	\$0.14	16,717
CONSTRUCTION ELECTRICITY USAGE		161,514

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

A summary of construction equipment by phase is provided on Table 4-4. Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the Code.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment ¹	Amount	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

¹ In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes during the site preparation and grading phases of Project construction.

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (28). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Site Preparation	18	Rubber Tired Dozers	367	3	8	0.4	3,523	3,428
		Crawler Tractors	87	4	8	0.43	1,197	1,165
Grading	36	Excavators	36	1	8	0.38	109	213
		Graders	148	1	8	0.41	485	945
		Rubber Tired Dozers	367	1	8	0.40	1,174	2,285
Building Construction	403	Crawler Tractors	87	3	8	0.43	898	1,747
		Cranes	367	1	8	0.29	851	18,548
		Forklifts	82	3	8	0.20	394	8,574
Paving	37	Generator Sets	14	1	8	0.74	83	1,805
		Tractors/Loaders/Backhoes	84	3	8	0.37	746	16,249
		Welders	46	1	8	0.45	166	3,607
		Pavers	81	2	8	0.42	544	1,089
Architectural Coating	37	Paving Equipment	89	2	8	0.36	513	1,025
CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								61,402

Diesel fuel would be supplied by existing industrial fuel providers serving the Project area and region². As presented in Table 4-5, Project construction activities would consume an estimated 61,402 gallons of diesel fuel. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

4.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, hauling, and vendors commuting to and from the site. The number of workers, hauling, and vendor trips are presented below in Table 4-6. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 4-6: CONSTRUCTION TRIP ASSUMPTIONS

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Site Preparation	28	1	0
Grading	23	2	0
Building Construction	61	21	0
Paving	15	0	0
Architectural Coating	12	0	0

4.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 514,171 VMT during the 20 months of construction (22). Based on CalEEMod methodology, it is assumed that 50% of all worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1³), and 25% are from light-duty-trucks (LDT2⁴). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). EMFAC2021 was

² Based on Appendix A of the CalEEMod User’s Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

³ Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

⁴ Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

run for the LDA, LDT1, and LDT2 vehicle class within the San Bernardino (MD) sub-area for the 2025 and 2026 calendar years. Data from EMFAC2021 is shown in Appendix 4.2.

As shown in Table 4-7, the estimated annual fuel consumption resulting from Project construction worker trips is 18,110 gallons during full construction of the Project. It should be noted that construction worker trips would represent a “single-event” gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2025	LDA						
	Site Preparation	18	14	18.5	4,662	32.23	145
	Grading	36	12	18.5	7,992	32.23	248
	Building Construction	143	31	18.5	82,011	32.23	2,544
	LDT1						
	Site Preparation	18	7	18.5	2,331	24.70	94
	Grading	36	6	18.5	3,996	24.70	162
	Building Construction	143	16	18.5	42,328	24.70	1,714
	LDT2						
	Site Preparation	18	7	18.5	2,331	24.81	94
	Grading	36	6	18.5	3,996	24.81	161
	Building Construction	143	16	18.5	42,328	24.81	1,706
2026	LDA						
	Building Construction	260	31	18.5	149,110	33.14	4,500
	Paving	37	8	18.5	5,476	33.14	165
	Architectural Coating	37	6	18.5	4,107	33.14	124
	LDT1						
	Building Construction	260	16	18.5	76,960	25.20	3,055
	Paving	37	4	18.5	2,738	25.20	109
	Architectural Coating	37	3	18.5	2,054	25.20	82
	LDT2						
	Building Construction	260	16	18.5	76,960	25.48	3,020
	Paving	37	4	18.5	2,738	25.48	107
	Architectural Coating	37	3	18.5	2,054	25.48	81
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION							18,110

4.3.6 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 91,535 VMT along area roadways for the Project over the duration of construction activity (22). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% of vendor trips are from heavy-heavy duty trucks (HHDT), and 100% of all hauling trips are from HHDTs. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (22). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHDT and HHDT vehicle classes within the San Bernardino (MD) sub-area for the 2025 and 2026 calendar years. Data from EMFAC2021 is shown in Appendix 4.2.

Based on Table 4-8, it is estimated that 13,089 gallons of fuel will be consumed related to construction hauling trips during full construction of the Project. It should be noted that Project construction vendor trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2025	MHD						
	Site Preparation	18	1	10.2	184	7.61	24
	Grading	36	1	10.2	367	7.61	48
	Building Construction	143	11	10.2	16,045	7.61	2,109
	HHD (Vendor)						
	Site Preparation	18	1	10.2	184	6.32	29
	Grading	36	1	10.2	367	6.32	58
2026	MHD						
	Building Construction	260	11	10.2	29,172	7.75	3,766
	HHD (Vendor)						
	Building Construction	260	11	10.2	29,172	6.46	4,516
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION							13,089

4.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted

that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.” In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling.

A full analysis related to the energy needed to form construction materials is not included in this analysis because at this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (24). EMFAC2021 was run for the San Bernardino (MD) sub-area for calendar year 2026. Data from EMFAC2021 is shown in Appendix 4.2.

The estimated transportation energy demands are summarized on Tables 4-9. As summarized on Table 4-12 the Project at Buildout would result in 2,291,301 annual VMT and an estimated annual fuel consumption of 93,291 gallons of fuel.

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	33.14	1,113,433	33,599
LDT1	25.20	98,622	3,914
LDT2	25.48	486,251	19,083
MDV	20.48	358,593	17,512
LHDT1	16.42	77,723	4,733
LHDT2	15.73	21,242	1,350
MHDT	7.75	12,579	1,624
HHDT	6.46	45,924	7,110
OBUS	5.66	1,107	196
UBUS	4.21	542	129
MCY	41.23	59,686	1,448
SBUS	8.15	2,466	303
MH	5.73	13,132	2,291
TOTAL (ALL VEHICLES)		2,291,301	93,291

¹ Total VMT may not match CalEEMod output due to rounding.

4.4.2 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of electricity and natural gas, which would be supplied to the Project by SCE and Southwest Gas Corp. As previously stated, the analysis herein assumes compliance with the 2022 Title 24 and CALGreen standards. Annual electricity demands of the Project are summarized in Table 4-10 and provided in Appendix 4.1.

TABLE 4-10: PROJECT ANNUAL OPERATIONAL NATURAL GAS DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Strip Retail Plaza	27,709	45,723
Office	128,968	82,024
RV Park	0	29,764
Self-Storage	3,814,162	2,425,812
Parking Lot	0	20,262
TOTAL PROJECT ENERGY DEMAND	3,970,839	2,603,585

kBTU – kilo-British Thermal Units

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code).

ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately \$22,611.96. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 161,514 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 61,402 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction

equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 18,110 gallons of fuel. Additionally, fuel consumption from construction hauling trips will total approximately 13,089 gallons. Diesel fuel would be supplied by City and regional industrial vendors. Indirectly, construction energy efficiency and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2023 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (29). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 OPERATIONAL ENERGY DEMANDS

TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 93,291 gallons of fuel.

Fuel would be provided by current and future industrial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to similar uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. The location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated to result in approximately 3,970,839 kBTU/year of natural gas and approximately 2,603,585 kWh/year for electricity and would be supplied by Southwest Gas Corp. and SCE. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Implementation of the Project would increase the demand for electricity at the Project site and petroleum consumption in the region during operation. However, the electrical consumption demands of the Project during operation would conform to the state's Title 24 and to CALGreen standards, which implement conservation measures. Further, the proposed Project would not directly require the construction of new energy generation or supply facilities and providers of electricity are in compliance with regulatory requirements that assist in conservation, including requirements that electrical providers achieve state-mandated renewable energy production requirements. With compliance with Title 24 conservation standards and other regulatory requirements, the Project would not be wasteful or inefficient or unnecessarily consume energy resources during construction or operation and would result in a less-than-significant impact with respect to consumption of energy resources.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Analysis

A significant impact would occur if the proposed Project would result in the inefficient, wasteful, or unnecessary use of energy.

Construction

Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with future development projects, construction-related vehicle trips would result in approximately 605,706 VMT and consume an estimated 31.199 gallons of gasoline and diesel combined during future development projects construction phases. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel- powered equipment and are enforced by the ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impacts related to electricity and fuel consumption would be less than significant.

Operation

Electricity and Natural Gas

Operation of the proposed project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based CalEEMod default estimations, operations for the Project would result in approximately 3,970,839 kBTU/year of natural gas and 2,603,585 kWh/year of electricity annually.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of

lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Fuel

Operational energy would also be consumed during vehicle trips associated with future development projects envisioned under the proposed project. Fuel consumption would be primarily related to vehicle use by residents, visitors, and employees associated with future development projects. Based on CalEEMod energy use estimations, project-related vehicle trips would result in approximately 2,291,301 VMT and consume an estimated 93,291 gallons of gasoline and diesel combined, annually (see Appendix 4.2).

The Project is located on an infill site that is surrounded by existing urban uses, the existing transportation facilities and infrastructure would provide future residents, visitors, and employees associated with the Project access to a mix of land uses in close proximity to the Project, thus further reducing fuel consumption demand. Additionally, the Project will also be providing parking and EV infrastructure that would further promote fuel efficient vehicles. For these reasons, operational-related transportation fuel consumption would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the operational impact related to vehicle fuel consumption would be less than significant.

5.2 ENERGY IMPACT 2

Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Analysis

A significant impact would occur if the proposed Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Construction

As discussed in Section 5.1, above, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on- road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would comply with these regulations. There are no policies at the local level applicable to energy conservation specific to the construction phase. Thus, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

California's Renewable Portfolio Standard (RPS) establishes a goal of renewable energy for local providers to be 44 percent by 2040. Similarly, the State is promoting renewable energy targets to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 5.1, above, the Project would result in approximately 3,970,839 kBTU/year of natural gas and 2,603,585 kWh/year of electricity annually.

Future development projects would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Compliance with the aforementioned mandatory measures would ensure that future development projects would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, operational energy efficiency and renewable energy standards consistency impacts would be less than significant.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Seneca Road. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 4.1:
CALEEMOD EMISSIONS MODEL OUTPUTS

15092 - Seneca Road Detailed Report

Table of Contents

1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
3. Construction Emissions Details
 - 3.1. Site Preparation (2025) - Unmitigated
 - 3.3. Grading (2025) - Unmitigated
 - 3.5. Building Construction (2025) - Unmitigated
 - 3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15092 - Seneca Road
Construction Start Date	4/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.51325, -117.402923
County	San Bernardino-Mojave Desert
City	Adelanto
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5180
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Strip Mall	4.70	1000sqft	0.11	4,700	43,992	—	—	—
General Office Building	4.70	1000sqft	0.11	4,700	0.00	—	—	—
Parking Lot	68.0	Space	0.78	0.00	0.00	—	—	RV Parking
Industrial Park	139	1000sqft	3.19	139,000	0.00	—	—	Self Storage
Parking Lot	59.0	Space	0.53	0.00	0.00	—	—	—
Other Asphalt Surfaces	4.03	Acre	4.03	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.93	4.15	37.6	33.9	0.05	1.93	5.90	7.83	1.78	2.74	4.52	—	5,815	5,815	0.23	0.14	5.10	5,840
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.93	23.2	20.1	30.4	0.05	0.77	1.34	2.11	0.71	0.32	1.03	—	6,098	6,098	0.19	0.17	0.15	6,153
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.34	3.23	9.17	14.1	0.02	0.39	0.92	1.31	0.36	0.32	0.69	—	3,118	3,118	0.09	0.10	1.48	3,153
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.24	0.59	1.67	2.57	< 0.005	0.07	0.17	0.24	0.07	0.06	0.13	—	516	516	0.02	0.02	0.25	522
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2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.93	4.15	37.6	33.9	0.05	1.93	5.90	7.83	1.78	2.74	4.52	—	5,815	5,815	0.23	0.14	5.10	5,840
2026	1.73	1.47	11.6	19.1	0.03	0.42	0.98	1.40	0.39	0.24	0.62	—	4,163	4,163	0.14	0.14	4.63	4,214
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.78	1.51	12.4	17.9	0.03	0.48	0.98	1.46	0.44	0.24	0.68	—	4,093	4,093	0.15	0.14	0.13	4,139
2026	2.93	23.2	20.1	30.4	0.05	0.77	1.34	2.11	0.71	0.32	1.03	—	6,098	6,098	0.19	0.17	0.15	6,153
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.22	1.03	8.73	10.8	0.02	0.39	0.92	1.31	0.36	0.32	0.69	—	2,224	2,224	0.08	0.06	0.92	2,245
2026	1.34	3.23	9.17	14.1	0.02	0.33	0.74	1.07	0.31	0.18	0.49	—	3,118	3,118	0.09	0.10	1.48	3,153
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.22	0.19	1.59	1.97	< 0.005	0.07	0.17	0.24	0.07	0.06	0.13	—	368	368	0.01	0.01	0.15	372
2026	0.24	0.59	1.67	2.57	< 0.005	0.06	0.13	0.20	0.06	0.03	0.09	—	516	516	0.02	0.02	0.25	522

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	5.00	8.02	4.02	33.9	0.07	0.14	5.01	5.15	0.13	1.27	1.41	162	10,029	10,190	16.9	0.45	33.8	10,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.42	6.53	4.19	21.7	0.06	0.13	5.01	5.14	0.13	1.27	1.40	162	9,471	9,633	16.9	0.46	13.5	10,208
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.63	6.72	3.92	24.0	0.06	0.13	4.43	4.55	0.12	1.12	1.25	162	8,946	9,108	16.9	0.43	20.9	9,681
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.66	1.23	0.72	4.38	0.01	0.02	0.81	0.83	0.02	0.20	0.23	26.8	1,481	1,508	2.80	0.07	3.46	1,603

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.74	3.51	2.90	26.6	0.06	0.05	5.01	5.06	0.04	1.27	1.32	—	6,074	6,074	0.22	0.26	20.8	6,179
Area	1.15	4.46	0.05	6.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.5	26.5	< 0.005	< 0.005	—	26.6
Energy	0.12	0.06	1.07	0.90	0.01	0.08	—	0.08	0.08	—	0.08	—	3,742	3,742	0.35	0.03	—	3,760
Water	—	—	—	—	—	—	—	—	—	—	—	63.9	186	250	6.57	0.16	—	461
Waste	—	—	—	—	—	—	—	—	—	—	—	97.9	0.00	97.9	9.79	0.00	—	343
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Total	5.00	8.02	4.02	33.9	0.07	0.14	5.01	5.15	0.13	1.27	1.41	162	10,029	10,190	16.9	0.45	33.8	10,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.30	3.07	3.12	20.8	0.05	0.05	5.01	5.06	0.04	1.27	1.32	—	5,543	5,543	0.23	0.27	0.54	5,632

Area	—	3.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12	0.06	1.07	0.90	0.01	0.08	—	0.08	0.08	—	0.08	—	3,742	3,742	0.35	0.03	—	3,760
Water	—	—	—	—	—	—	—	—	—	—	—	63.9	186	250	6.57	0.16	—	461
Waste	—	—	—	—	—	—	—	—	—	—	—	97.9	0.00	97.9	9.79	0.00	—	343
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Total	3.42	6.53	4.19	21.7	0.06	0.13	5.01	5.14	0.13	1.27	1.40	162	9,471	9,633	16.9	0.46	13.5	10,208
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.94	2.74	2.83	19.9	0.05	0.04	4.43	4.47	0.04	1.12	1.16	—	5,005	5,005	0.21	0.25	7.92	5,091
Area	0.57	3.92	0.03	3.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.1	13.1	< 0.005	< 0.005	—	13.1
Energy	0.12	0.06	1.07	0.90	0.01	0.08	—	0.08	0.08	—	0.08	—	3,742	3,742	0.35	0.03	—	3,760
Water	—	—	—	—	—	—	—	—	—	—	—	63.9	186	250	6.57	0.16	—	461
Waste	—	—	—	—	—	—	—	—	—	—	—	97.9	0.00	97.9	9.79	0.00	—	343
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Total	3.63	6.72	3.92	24.0	0.06	0.13	4.43	4.55	0.12	1.12	1.25	162	8,946	9,108	16.9	0.43	20.9	9,681
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.54	0.50	0.52	3.64	0.01	0.01	0.81	0.82	0.01	0.20	0.21	—	829	829	0.03	0.04	1.31	843
Area	0.10	0.72	< 0.005	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.17	2.17	< 0.005	< 0.005	—	2.17
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	620	620	0.06	0.01	—	623
Water	—	—	—	—	—	—	—	—	—	—	—	10.6	30.8	41.4	1.09	0.03	—	76.3
Waste	—	—	—	—	—	—	—	—	—	—	—	16.2	0.00	16.2	1.62	0.00	—	56.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.15	2.15
Total	0.66	1.23	0.72	4.38	0.01	0.02	0.81	0.83	0.02	0.20	0.23	26.8	1,481	1,508	2.80	0.07	3.46	1,603

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.82	4.05	37.5	32.4	0.05	1.93	—	1.93	1.78	—	1.78	—	5,528	5,528	0.22	0.04	—	5,547
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.85	1.60	< 0.005	0.10	—	0.10	0.09	—	0.09	—	273	273	0.01	< 0.005	—	274
Dust From Material Movement	—	—	—	—	—	—	0.28	0.28	—	0.13	0.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.34	0.29	< 0.005	0.02	—	0.02	0.02	—	0.02	—	45.1	45.1	< 0.005	< 0.005	—	45.3
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.08	1.45	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	255	255	0.01	0.01	0.93	259	
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.9	31.9	< 0.005	< 0.005	0.09	33.2	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6	
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.64	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.93	
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

3.3. Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.73	2.30	20.6	19.6	0.03	1.15	—	1.15	1.05	—	1.05	—	3,134	3,134	0.13	0.03	—	3,145
Dust From Material Movement:	—	—	—	—	—	—	2.26	2.26	—	0.94	0.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	2.04	1.93	< 0.005	0.11	—	0.11	0.10	—	0.10	—	309	309	0.01	< 0.005	—	310
Dust From Material Movement:	—	—	—	—	—	—	0.22	0.22	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	0.35	< 0.005	0.02	—	0.02	0.02	—	0.02	—	51.2	51.2	< 0.005	< 0.005	—	51.4
Dust From Material Movement:	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.25	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	219	219	0.01	0.01	0.80	222

Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	63.7	63.7	< 0.005	0.01	0.17	66.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.7	19.7	< 0.005	< 0.005	0.03	19.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.29	6.29	< 0.005	< 0.005	0.01	6.55
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.26	3.26	< 0.005	< 0.005	0.01	3.30
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.45	1.21	11.3	14.1	0.03	0.47	—	0.47	0.43	—	0.43	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.45	1.21	11.3	14.1	0.03	0.47	—	0.47	0.43	—	0.43	—	2,630	2,630	0.11	0.02	—	2,639

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.41	5.51	0.01	0.18	—	0.18	0.17	—	0.17	—	1,024	1,024	0.04	0.01	—	1,028	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.10	0.09	0.80	1.01	< 0.005	0.03	—	0.03	0.03	—	0.03	—	170	170	0.01	< 0.005	—	170	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.37	0.34	0.30	5.10	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	895	895	0.04	0.03	3.27	909	
Vendor	0.03	0.03	0.68	0.30	0.01	0.01	0.18	0.19	0.01	0.05	0.06	—	669	669	< 0.005	0.09	1.83	698	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.31	0.27	0.33	3.42	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	793	793	0.04	0.03	0.08	803	
Vendor	0.03	0.02	0.72	0.30	0.01	0.01	0.18	0.19	0.01	0.05	0.06	—	670	670	< 0.005	0.09	0.05	696	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.12	0.11	0.14	1.49	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	318	318	0.02	0.01	0.55	322	
Vendor	0.01	0.01	0.28	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	261	261	< 0.005	0.03	0.31	271	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Worker	0.02	0.02	0.03	0.27	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	52.6	52.6	< 0.005	< 0.005	0.09	53.4
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.1	43.1	< 0.005	0.01	0.05	44.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	7.60	10.0	0.02	0.29	—	0.29	0.27	—	0.27	—	1,873	1,873	0.08	0.02	—	1,880
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.39	1.83	< 0.005	0.05	—	0.05	0.05	—	0.05	—	310	310	0.01	< 0.005	—	311

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.29	0.27	4.74	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	878	878	0.04	0.03	2.97	891	
Vendor	0.03	0.03	0.65	0.28	0.01	0.01	0.18	0.19	0.01	0.05	0.06	—	656	656	< 0.005	0.09	1.65	684	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.29	0.26	0.30	3.15	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	777	777	0.01	0.03	0.08	787	
Vendor	0.03	0.02	0.69	0.29	0.01	0.01	0.18	0.19	0.01	0.05	0.06	—	657	657	< 0.005	0.09	0.04	683	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.21	0.19	0.23	2.53	0.00	0.00	0.57	0.57	0.00	0.13	0.13	—	570	570	0.01	0.02	0.91	578	
Vendor	0.02	0.02	0.49	0.20	< 0.005	0.01	0.13	0.13	0.01	0.04	0.04	—	467	467	< 0.005	0.06	0.51	487	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.04	0.03	0.04	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.4	94.4	< 0.005	< 0.005	0.15	95.6	
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	77.4	77.4	< 0.005	0.01	0.08	80.6	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

3.9. Paving (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.72	1.01	< 0.005	0.03	—	0.03	0.03	—	0.03	—	153	153	0.01	< 0.005	—	154
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.4	25.4	< 0.005	< 0.005	—	25.4
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.77	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	192
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.28	3.28	< 0.005	< 0.005	0.01	3.32	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

3.11. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architect ural Coatings	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.12	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.0	18.0	< 0.005	< 0.005	—	18.1
Architectural Coatings	—	2.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.99	2.99	< 0.005	< 0.005	—	3.00
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.63	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	155	155	< 0.005	0.01	0.02	157
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	0.03	16.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.69	2.69	< 0.005	< 0.005	< 0.005	2.72

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	1.25	1.18	0.86	7.74	0.02	0.01	1.40	1.41	0.01	0.36	0.37	—	1,708	1,708	0.07	0.08	5.80	1,738	
General Office Building	0.35	0.33	0.29	2.67	0.01	< 0.005	0.51	0.52	< 0.005	0.13	0.13	—	619	619	0.02	0.03	2.12	630	
Parking Lot	0.85	0.80	0.70	6.45	0.01	0.01	1.24	1.25	0.01	0.31	0.32	—	1,494	1,494	0.05	0.06	5.12	1,520	
Industrial Park	1.29	1.20	1.05	9.72	0.02	0.02	1.86	1.88	0.02	0.47	0.49	—	2,253	2,253	0.08	0.10	7.72	2,291	
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Total	3.74	3.51	2.90	26.6	0.06	0.05	5.01	5.06	0.04	1.27	1.32	—	6,074	6,074	0.22	0.26	20.8	6,179	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	1.10	1.03	0.92	6.18	0.02	0.01	1.40	1.41	0.01	0.36	0.37	—	1,559	1,559	0.07	0.08	0.15	1,585	

General Office Building	0.31	0.29	0.31	2.08	0.01	< 0.005	0.51	0.52	< 0.005	0.13	0.13	—	565	565	0.02	0.03	0.06	574
Parking Lot	0.76	0.70	0.75	5.02	0.01	0.01	1.24	1.25	0.01	0.31	0.32	—	1,363	1,363	0.05	0.07	0.13	1,385
Industrial Park	1.14	1.06	1.14	7.56	0.02	0.02	1.86	1.88	0.02	0.47	0.49	—	2,055	2,055	0.08	0.10	0.20	2,088
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.30	3.07	3.12	20.8	0.05	0.05	5.01	5.06	0.04	1.27	1.32	—	5,543	5,543	0.23	0.27	0.54	5,632
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.18	0.17	0.15	1.07	< 0.005	< 0.005	0.22	0.23	< 0.005	0.06	0.06	—	232	232	0.01	0.01	0.36	236
General Office Building	0.04	0.04	0.04	0.31	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.11	72.3
Parking Lot	0.14	0.13	0.14	0.99	< 0.005	< 0.005	0.23	0.23	< 0.005	0.06	0.06	—	231	231	0.01	0.01	0.37	235
Industrial Park	0.18	0.16	0.18	1.27	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.47	300
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.54	0.50	0.52	3.64	0.01	0.01	0.81	0.82	0.01	0.20	0.21	—	829	829	0.03	0.04	1.31	843

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	77.8	77.8	0.01	< 0.005	—	78.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	47.4	47.4	< 0.005	< 0.005	—	47.7
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	2,301	2,301	0.22	0.03	—	2,314
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,469	2,469	0.24	0.03	—	2,484
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.4	43.4	< 0.005	< 0.005	—	43.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	77.8	77.8	0.01	< 0.005	—	78.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	47.4	47.4	< 0.005	< 0.005	—	47.7
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	2,301	2,301	0.22	0.03	—	2,314
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,469	2,469	0.24	0.03	—	2,484
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.18	7.18	< 0.005	< 0.005	—	7.22

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	12.9	12.9	< 0.005	< 0.005	—	13.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	7.86	7.86	< 0.005	< 0.005	—	7.90
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	381	381	0.04	< 0.005	—	383
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	409	409	0.04	< 0.005	—	411

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.88	8.88	< 0.005	< 0.005	—	8.90
General Office Building	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.3	41.3	< 0.005	< 0.005	—	41.4
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	0.11	0.06	1.02	0.86	0.01	0.08	—	0.08	0.08	—	0.08	—	1,222	1,222	0.11	< 0.005	—	1,226
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.12	0.06	1.07	0.90	0.01	0.08	—	0.08	0.08	—	0.08	—	1,273	1,273	0.11	< 0.005	—	1,276
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.88	8.88	< 0.005	< 0.005	—	8.90
General Office Building	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.3	41.3	< 0.005	< 0.005	—	41.4
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	0.11	0.06	1.02	0.86	0.01	0.08	—	0.08	0.08	—	0.08	—	1,222	1,222	0.11	< 0.005	—	1,226
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.12	0.06	1.07	0.90	0.01	0.08	—	0.08	0.08	—	0.08	—	1,273	1,273	0.11	< 0.005	—	1,276
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.47	1.47	< 0.005	< 0.005	—	1.47
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.84	6.84	< 0.005	< 0.005	—	6.86
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	202	202	0.02	< 0.005	—	203
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	211	211	0.02	< 0.005	—	211

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
--------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	1.06	0.05	6.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.5	26.5	< 0.005	< 0.005	—	26.6
Total	1.15	4.46	0.05	6.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.5	26.5	< 0.005	< 0.005	—	26.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.10	< 0.005	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.17	2.17	< 0.005	< 0.005	—	2.17
Total	0.10	0.72	< 0.005	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.17	2.17	< 0.005	< 0.005	—	2.17

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.67	5.82	6.48	0.07	< 0.005	—	8.71
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.60	4.56	6.16	0.16	< 0.005	—	11.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	61.6	176	237	6.33	0.15	—	441
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	63.9	186	250	6.57	0.16	—	461
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.67	5.82	6.48	0.07	< 0.005	—	8.71
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.60	4.56	6.16	0.16	< 0.005	—	11.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	61.6	176	237	6.33	0.15	—	441

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	63.9	186	250	6.57	0.16	—	461
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.11	0.96	1.07	0.01	< 0.005	—	1.44
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.76	1.02	0.03	< 0.005	—	1.90
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	10.2	29.1	39.3	1.05	0.03	—	73.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.6	30.8	41.4	1.09	0.03	—	76.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.36	0.00	2.36	0.24	0.00	—	8.24
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	92.9	0.00	92.9	9.28	0.00	—	325
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	97.9	0.00	97.9	9.79	0.00	—	343
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.36	0.00	2.36	0.24	0.00	—	8.24
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	92.9	0.00	92.9	9.28	0.00	—	325
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	97.9	0.00	97.9	9.79	0.00	—	343
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.44	0.00	0.44	0.04	0.00	—	1.54
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.39	0.00	0.39	0.04	0.00	—	1.36
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	15.4	0.00	15.4	1.54	0.00	—	53.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.2	0.00	16.2	1.62	0.00	—	56.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	13.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.15	2.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.15	2.15

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
---------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2025	4/24/2025	5.00	18.0	10
Grading	Grading	4/25/2025	6/13/2025	5.00	36.0	20
Building Construction	Building Construction	6/16/2025	12/30/2026	5.00	403	230
Paving	Paving	11/10/2026	12/30/2026	5.00	37.0	20
Architectural Coating	Architectural Coating	11/10/2026	12/30/2026	5.00	37.0	20

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	61.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	21.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	222,600	74,200	13,970

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	63.0	0.00	—
Grading	—	—	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	5.34

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Strip Mall	0.00	0%
General Office Building	0.00	0%
Parking Lot	0.78	100%
Industrial Park	0.00	0%
Parking Lot	0.53	100%
Other Asphalt Surfaces	4.03	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Strip Mall	256	198	96.0	82,030	1,985	1,533	745	636,340
General Office Building	67.6	10.4	3.29	18,346	726	112	35.3	196,949

Parking Lot	163	163	163	59,568	1,752	1,752	1,752	639,477
Industrial Park	202	246	209	76,247	2,164	2,641	2,238	818,535
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	222,600	74,200	13,970

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Strip Mall	45,723	346	0.0330	0.0040	27,709

General Office Building	82,024	346	0.0330	0.0040	128,968
Parking Lot	29,764	346	0.0330	0.0040	0.00
Industrial Park	2,425,812	346	0.0330	0.0040	3,814,162
Parking Lot	20,262	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	348,141	973,919
General Office Building	835,349	0.00
Parking Lot	0.00	0.00
Industrial Park	32,143,750	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	4.94	—
General Office Building	4.37	—
Parking Lot	0.00	—
Industrial Park	172	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	User Defined	150	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Industrial Park	Other commercial A/C and heat pumps	User Defined	750	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.2	annual days of extreme heat
Extreme Precipitation	1.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	20.8
AQ-DPM	9.43
Drinking Water	8.47
Lead Risk Housing	35.8

Pesticides	0.00
Toxic Releases	17.6
Traffic	35.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	87.3
Cardio-vascular	99.6
Low Birth Weights	85.6
Socioeconomic Factor Indicators	—
Education	81.1
Housing	96.0
Linguistic	52.5
Poverty	82.1
Unemployment	95.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	6.197869883
Employed	3.131015013
Median HI	16.70730142

Education	—
Bachelor's or higher	10.61208777
High school enrollment	100
Preschool enrollment	12.83202874
Transportation	—
Auto Access	76.73553189
Active commuting	20.39009367
Social	—
2-parent households	38.63723855
Voting	21.53214423
Neighborhood	—
Alcohol availability	97.0101373
Park access	2.194276915
Retail density	19.196715
Supermarket access	16.7842936
Tree canopy	2.643397921
Housing	—
Homeownership	57.6799692
Housing habitability	16.50198896
Low-inc homeowner severe housing cost burden	16.95110997
Low-inc renter severe housing cost burden	2.65622995
Uncrowded housing	22.82817914
Health Outcomes	—
Insured adults	41.85807776
Arthritis	0.0
Asthma ER Admissions	6.8
High Blood Pressure	0.0

Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	11.1
Cognitively Disabled	33.5
Physically Disabled	10.8
Heart Attack ER Admissions	0.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	1.3
Elderly	78.6
English Speaking	68.7
Foreign-born	41.3
Outdoor Workers	59.0

Climate Change Adaptive Capacity	—
Impervious Surface Cover	81.7
Traffic Density	49.8
Traffic Access	23.0
Other Indices	—
Hardship	92.4
Other Decision Support	—
2016 Voting	23.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	40.0
Healthy Places Index Score for Project Location (b)	9.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Taken from client data Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Operations: Vehicle Data	Trip characteristics based on information from Trip Generation 28% Pass-by trips accounted for strip mall
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.
Land Use	Taken from site plan

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APPENDIX 4.2:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (MD)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Gasoline	2.232242923	174.685266	0.044229524	44.2295237	432481.2549	174.685266	2734029.591	6.32	HHDT
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Diesel	13290.67817	2718528.943	432.0213964	432021.3964		2718528.943			
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Electricity	73.24127598	12813.71434	0	0		12813.71434			
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Natural Gas	35.79343022	2512.247509	0.415629021	415.6290209		2512.247509			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Gasoline	307204.9065	12797926.77	429.1779078	429177.9078	436597.3127	12797926.77	14073139.3	32.23	LDA
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Diesel	962.0467026	31196.26149	0.748307293	748.3072934		31196.26149			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Electricity	15945.46151	804402.9682	0	0		804402.9682			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	8911.299519	439613.293	6.671097623	6671.097623		439613.293			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Gasoline	30281.94807	1023948.458	41.65322818	41653.22818	41697.61719	1023948.458	1029868.3	24.70	LDT1
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Diesel	14.37328038	188.8766986	0.008040521	8.040520781		188.8766986			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Electricity	63.4184097	3080.600848	0	0		3080.600848			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	49.86017175	2650.364423	0.03634849	36.34848996		2650.364423			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Gasoline	140054.4178	5773502.786	236.1756642	236175.6642	237720.0276	5773502.786	5897880.02	24.81	LDT2
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Diesel	454.8922035	20007.67935	0.611012146	611.0121455		20007.67935			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Electricity	1069.89935	39638.13947	0	0		39638.13947			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1272.587663	64731.41535	0.933351272	933.3512721		64731.41535			
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Gasoline	12749.90304	475043.245	35.43436776	35434.36776	55010.64497	475043.245	883072.4904	16.05	LHDT1
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Diesel	10857.0041	400920.8214	19.57627721	19576.27721		400920.8214			
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Electricity	98.95601889	7108.423969	0	0		7108.423969			
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Gasoline	1694.603438	62030.68257	5.192318957	5192.318957	15650.1167	62030.68257	242225.873	15.48	LHDT2
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Diesel	4701.002143	178465.3217	10.45779775	10457.79775		178465.3217			
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Electricity	25.33497762	1729.868729	0	0		1729.868729			
San Bernardino (MD)	2025	MCY	Aggregate	Aggregate	Gasoline	18028.35168	103626.8773	2.523996755	2523.996755	2523.996755	103626.8773	103626.8773	41.06	MCY
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Gasoline	104110.8234	4088311.316	208.9513311	208951.3311	212434.2616	4088311.316	4239424.171	19.96	MDV
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Diesel	1692.198431	67609.45588	2.88135729	2881.35729		67609.45588			
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Electricity	1171.653338	43345.03939	0	0		43345.03939			
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	833.9511312	40158.35884	0.601573161	601.5731607		40158.35884			
San Bernardino (MD)	2025	MH	Aggregate	Aggregate	Gasoline	2893.636898	25016.37485	5.245754427	5245.754427	6272.807843	25016.37485	35768.39412	5.70	MH
San Bernardino (MD)	2025	MH	Aggregate	Aggregate	Diesel	1253.718461	10752.01927	1.027053416	1027.053416		10752.01927			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Gasoline	882.0237715	63858.83118	12.28009321	12280.09321	29977.28732	63858.83118	228066.8499	7.61	MHDT
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Diesel	2781.840623	161536.5192	17.65065663	17650.65663		161536.5192			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Electricity	28.71678871	2254.085381	0	0		2254.085381			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Natural Gas	9.099353532	417.4140741	0.046537478	46.53747752		417.4140741			
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Gasoline	261.4887956	15607.15432	3.068703649	3068.703649	3748.986927	15607.15432	20801.72684	5.55	OBUS
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Diesel	75.38246548	5026.471411	0.680283277	680.2832772		5026.471411			
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Electricity	1.341531249	168.1011082	0	0		168.1011082			
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Gasoline	98.49583354	6296.430474	0.679357612	679.3576122	2603.492993	6296.430474	21027.36671	8.08	SBUS
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Diesel	629.7408474	14618.33063	1.924135381	1924.135381		14618.33063			
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Electricity	3.193149087	112.6056107	0	0		112.6056107			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Gasoline	55.28517502	5275.618753	1.393158939	1393.158939	4688.363233	5275.618753	19298.70462	4.12	UBUS
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Diesel	2.531039845	250.3343972	0.03157511	31.57511024		250.3343972			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Electricity	0.196662013	20.74124617	0	0		20.74124617			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Natural Gas	104.1147381	13752.01023	3.263629184	3263.629184		13752.01023			

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (MD)

Calendar Year: 2026

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2026	HHDT	Aggregate	Aggregate	Gasoline	1.899683726	174.3616545	0.04264416	42.64416028	432943.5148	174.3616545	2796460.733	6.46	HHDT
San Bernardino (MD)	2026	HHDT	Aggregate	Aggregate	Diesel	13602.29678	2771005.673	432.4799113	432479.9113		2771005.673			
San Bernardino (MD)	2026	HHDT	Aggregate	Aggregate	Electricity	127.8696544	22710.61538	0	0		22710.61538			
San Bernardino (MD)	2026	HHDT	Aggregate	Aggregate	Natural Gas	37.04411336	2570.082115	0.420959404	420.9594044		2570.082115			
San Bernardino (MD)	2026	LDA	Aggregate	Aggregate	Gasoline	305489.5206	12749590.6	418.9786743	418978.6743	426567.5923	12749590.6	14135869.68	33.14	LDA
San Bernardino (MD)	2026	LDA	Aggregate	Aggregate	Diesel	876.928382	28379.27708	0.672827136	672.8271359		28379.27708			
San Bernardino (MD)	2026	LDA	Aggregate	Aggregate	Electricity	17937.07805	893570.6016	0	0		893570.6016			
San Bernardino (MD)	2026	LDA	Aggregate	Aggregate	Plug-in Hybrid	9527.688784	464329.1939	6.916090829	6916.090829		464329.1939			
San Bernardino (MD)	2026	LDT1	Aggregate	Aggregate	Gasoline	29409.2209	1000607.571	39.96456636	39964.56636	40018.19281	1000607.571	1008273.494	25.20	LDT1
San Bernardino (MD)	2026	LDT1	Aggregate	Aggregate	Diesel	12.10299031	155.9958444	0.006621349	6.621348638		155.9958444			
San Bernardino (MD)	2026	LDT1	Aggregate	Aggregate	Electricity	81.37647626	4027.245512	0	0		4027.245512			
San Bernardino (MD)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybrid	66.2932027	3482.681855	0.047005099	47.00509905		3482.681855			
San Bernardino (MD)	2026	LDT2	Aggregate	Aggregate	Gasoline	142488.6507	5890341.748	235.1564544	235156.4544	236829.03	5890341.748	6034570.502	25.48	LDT2
San Bernardino (MD)	2026	LDT2	Aggregate	Aggregate	Diesel	473.8572412	20738.00724	0.620690062	620.6900618		20738.00724			
San Bernardino (MD)	2026	LDT2	Aggregate	Aggregate	Electricity	1345.306205	49286.61888	0	0		49286.61888			
San Bernardino (MD)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1480.744283	74204.12838	1.051885518	1051.885518		74204.12838			
San Bernardino (MD)	2026	LHDT1	Aggregate	Aggregate	Gasoline	12487.32989	470160.4045	34.21673632	34216.73632	53301.96324	470160.4045	875352.836	16.42	LHDT1
San Bernardino (MD)	2026	LHDT1	Aggregate	Aggregate	Diesel	10626.46114	392131.3081	19.08522692	19085.22692		392131.3081			
San Bernardino (MD)	2026	LHDT1	Aggregate	Aggregate	Electricity	189.3434838	13061.12332	0	0		13061.12332			
San Bernardino (MD)	2026	LHDT2	Aggregate	Aggregate	Gasoline	1661.454966	61116.2607	5.010679571	5010.679571	15258.7239	61116.2607	240080.2672	15.73	LHDT2
San Bernardino (MD)	2026	LHDT2	Aggregate	Aggregate	Diesel	4658.884027	175787.53	10.24804433	10248.04433		175787.53			
San Bernardino (MD)	2026	LHDT2	Aggregate	Aggregate	Electricity	48.36806308	3176.476456	0	0		3176.476456			
San Bernardino (MD)	2026	MCY	Aggregate	Aggregate	Gasoline	17895.1562	102596.0564	2.488161137	2488.161137	2488.161137	102596.0564	102596.0564	41.23	MCY
San Bernardino (MD)	2026	MDV	Aggregate	Aggregate	Gasoline	103415.0479	4072512.867	203.5278514	203527.8514	206971.262	4072512.867	4238157.587	20.48	MDV
San Bernardino (MD)	2026	MDV	Aggregate	Aggregate	Diesel	1665.031155	65783.33298	2.764958659	2764.958659		65783.33298			
San Bernardino (MD)	2026	MDV	Aggregate	Aggregate	Electricity	1464.490328	53552.91746	0	0		53552.91746			
San Bernardino (MD)	2026	MDV	Aggregate	Aggregate	Plug-in Hybrid	969.4210543	46308.47	0.678452004	678.4520035		46308.47			
San Bernardino (MD)	2026	MH	Aggregate	Aggregate	Gasoline	2707.798413	23494.3462	4.926517077	4926.517077	5930.430641	23494.3462	33999.10524	5.73	MH
San Bernardino (MD)	2026	MH	Aggregate	Aggregate	Diesel	1229.529392	10504.75905	1.003913564	1003.913564		10504.75905			
San Bernardino (MD)	2026	MHDT	Aggregate	Aggregate	Gasoline	866.6572583	63825.99852	12.12732851	12127.32851	29914.49002	63825.99852	231729.9812	7.75	MHDT
San Bernardino (MD)	2026	MHDT	Aggregate	Aggregate	Diesel	2842.733423	163441.0013	17.7380062	17738.0062		163441.0013			
San Bernardino (MD)	2026	MHDT	Aggregate	Aggregate	Electricity	52.39361043	4021.365345	0	0		4021.365345			
San Bernardino (MD)	2026	MHDT	Aggregate	Aggregate	Natural Gas	9.762820125	441.6160368	0.049155313	49.15531296		441.6160368			
San Bernardino (MD)	2026	OBUS	Aggregate	Aggregate	Gasoline	251.3212704	14921.97326	2.901576422	2901.576422	3581.716592	14921.97326	20261.84274	5.66	OBUS
San Bernardino (MD)	2026	OBUS	Aggregate	Aggregate	Diesel	78.36164299	5061.302238	0.68014017	680.1401701		5061.302238			
San Bernardino (MD)	2026	OBUS	Aggregate	Aggregate	Electricity	2.250369302	278.5672458	0	0		278.5672458			
San Bernardino (MD)	2026	SBUS	Aggregate	Aggregate	Gasoline	100.6931333	6500.469455	0.697198308	697.1983081	2610.051605	6500.469455	21263.28761	8.15	SBUS
San Bernardino (MD)	2026	SBUS	Aggregate	Aggregate	Diesel	633.2263747	14570.63628	1.912853297	1912.853297		14570.63628			
San Bernardino (MD)	2026	SBUS	Aggregate	Aggregate	Electricity	5.499587425	192.1818785	0	0		192.1818785			
San Bernardino (MD)	2026	UBUS	Aggregate	Aggregate	Gasoline	55.39653929	5286.245751	1.395975188	1395.975188	4595.49546	5286.245751	19337.57917	4.21	UBUS
San Bernardino (MD)	2026	UBUS	Aggregate	Aggregate	Diesel	2.365880584	238.0224353	0.030309796	30.3097962		238.0224353			
San Bernardino (MD)	2026	UBUS	Aggregate	Aggregate	Electricity	0.194695832	20.5946752	0	0		20.5946752			
San Bernardino (MD)	2026	UBUS	Aggregate	Aggregate	Natural Gas	104.4970827	13792.71631	3.169210476	3169.210476		13792.71631			

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