Chino Distribution Center

ENERGY ANALYSIS

CITY OF CHINO

PREPARED BY:

Haseeb Qureshi
hqureshi@urbanxroads.com

Alyssa Barnett
abarnett@urbanxroads.com

SEPTEMBER 6, 2024

TABLE OF CONTENTS

APPENDICES

LIST OF EXHIBITS

LIST OF TABLES

LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	*Chino Distribution Center Air Quality Impact Analysis*
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 Chino
CPEP	Clean Power and Electrification Pathway
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
MARB/IPA	March Air Reserve Base/Inland Port Airport
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	Chino Distribution Center
PV	Photovoltaic
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Foot
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21st Century
U.S.	United States
VMT	Vehicle Miles Traveled

This page intentionally left blank

EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Chino Distribution Center 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?	6.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	6.0	*Less Than Significant*	*n/a*

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.

This page intentionally left blank

1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Chino Distribution Center Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Chino (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 Project is located at 5088 Edison Avenue in the City of Chino, as shown on Exhibit 1-A. The Project site is surrounded by industrial and commercial uses on all sides, with residential neighborhoods primarily situated further north of the site.

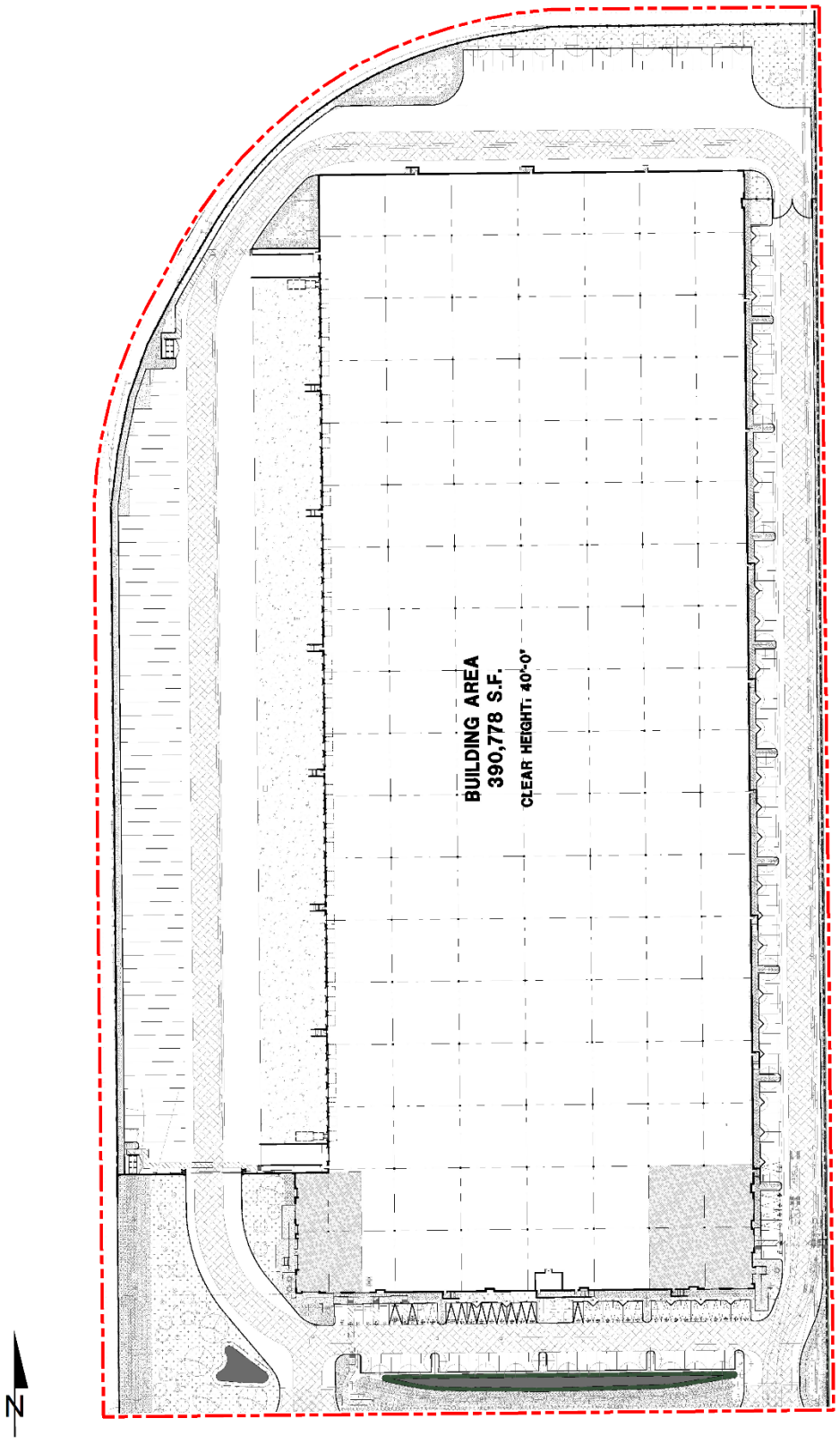
1.2 PROJECT DESCRIPTION

A preliminary site plan for the proposed Project is shown on Exhibit 1-B. Development of the Project is to include the construction of a 390,778 square foot warehouse. It should be noted that the square footage of the original Project has been updated. For purposes of analysis, the Project will evaluate 98,558 square feet of high-cube cold storage warehouse use and 295,672 square feet of warehousing use (25% and 75% of the overall square footage, respectively, for a total of 394,230 square feet). The site is currently occupied by an operational manufacturing facility.

It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2027. In addition, this analysis describes Project-related energy usage associated with typical operational activities at the Project site. The typical Project-related operational energy usage are expected to include project-related transportation, transportation refrigeration units (TRU) stationary equipment, on-site cargo handling equipment, and facility energy demands. This report assumes the Project-related operations will function 24-hours daily for seven days per week. It is expected that the Project construction energy usage would include operations of construction-related energy usage, construction equipment, and worker and vendor trips.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: PRELIMINARY SITE PLAN



This page intentionally left blank

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 and 2022, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and 2022 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 253,289 million gallons (or about 6.03 million barrels) of finished petroleum products were consumed in the U.S., an average of about 694 million gallons per day (or about 16.5 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 41.3% transportation sector
- Approximately 23.5% industrial sector
- Approximately 18.1% residential sector
- Approximately 17.0% commercial sector (6)

According to the EIA, California used approximately 251,869 gigawatt hours of electricity in 2022 (7). By sector in 2022, residential uses utilized 35.6% of the state's electricity, followed by 45.3% for commercial uses, 18.9% 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 2022 (8). In 2023 (the most recent year for which data is available), by sector, industrial uses utilized 31% of the state's natural gas, followed by 32% used as fuel in the electric power sector, 23% from residential, 13% 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 2023, California was the seventh-largest producer of crude oil among the 50 states, and 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.
- California is the second-largest total energy consumer among the states, after Texas, but its per capita energy consumption is the fourth-lowest in the nation.
- In 2023, renewable resources, including hydroelectric power and small-scale solar power, supplied 54% of California's in-state electricity generation. Natural gas fueled another 39% and nuclear power provided almost all the rest.
- In 2023, California was the fourth-largest electricity producer in the nation. It is also the nation's third-largest electricity consumer and imports more electricity than any other state.

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: California Energy Commission's 2022 Total System Electric Generation

2.2 ELECTRICITY

The usage associated with electricity use was 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 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 pipelines 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.

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).

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 year[1]. Gasoline (and other vehicle fuels) are 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 jet fuel and the second-largest of motor gasoline, and 83% of the petroleum consumed in California is used in the transportation sector (16).

[1] Fuel consumptions estimated utilizing information from EMFAC2021.

This page intentionally left blank

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 introduces a new

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.

This page intentionally left blank

4 EXISTING PROJECT SITE OPERATIONAL ENERGY DEMANDS

4.1 EXISTING OPERATIONAL ENERGY DEMANDS

4.1.1 EXISTING TRANSPORTATION ENERGY DEMANDS

The Project site is currently occupied by a manufacturing facility that is currently operational. The estimated transportation energy demands from the existing development are summarized in Table 4-1.

TABLE 4-1: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual VMT	Estimated Annual Fuel Consumption (gallons)
EXISTING (ALL VEHICLES)	***1,041,716***	***56,880***

4.1.2 EXISTING FACILITY ENERGY DEMANDS

The estimated facility energy demands from the existing development are summarized in Table 4-2.

TABLE 4-2: EXISTING ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
TOTAL EXISTING ENERGY DEMAND	***1,387,780***	***337,165***

kBTU – kilo-British Thermal Units

This page intentionally left blank

5 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

5.1 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* (22), 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.

5.2 METHODOLOGY

Information from the CalEEMod Version 2022.1.1.12 outputs for the *Chino Distribution Center Air Quality Impact Analysis* (AQIA) (23) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

5.2.1 CALEEMOD

In May 2023, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the SCAQMD, released the latest version of CalEEMod, version 2022.1.1.12. 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 (24). 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 Appendices 5.1 and 5.2.

5.2.2 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 (25). 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 2026 and 2027 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Output from the EMFAC2021 model runs are provided in Appendix 5.3.

CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in January 2026 and would last through March 2027 (23). The construction schedule utilized in the analysis, shown in Table 5-1, 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* (26).

TABLE 5-1: CONSTRUCTION DURATION

Construction Activity		Start Date	End Date	Working
Project Construction	Demolition/Crushing	01/02/26	01/29/26	20
	Site Preparation	01/30/26	02/12/26	10
	Grading	02/13/26	03/26/26	30
	Building Construction	03/27/26	12/31/26	200
	Paving	01/01/27	01/14/27	10
	Architectural Coating	01/15/27	03/11/27	40
Off-Site Construction	Linear, Grubbing & Land Clearing	03/27/26	08/13/26	100
	Linear, Grading & Excavation	08/14/26	11/16/26	67
	Linear, Paving	11/17/26	12/31/26	33

CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 5-2 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 5-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 3)

Construction Activity		Equipment[1]	Amount	Hours Per Day
Project Construction	Demolition/Crushing	Concrete/Industrial Saws	1	8
		Excavators	3	8
		Rubber Tired Dozers	2	8
		Crushing/Proc. Equipment	1	8
	Site Preparation	Rubber Tired Dozers	3	8
		Crawler Tractors	4	8

TABLE 5-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 3)

Construction Activity		Equipment[1]	Amount	Hours Per
Project Construction	Grading	Excavators	2	8
		Graders	1	8
		Rubber Tired Dozers	1	8
		Scrapers	2	8
		Crawler Tractors	2	8
	Building Construction	Cranes	2	8
		Forklifts	5	8
		Generator Sets	2	8
		Tractors/Loaders/Backhoes	5	8
		Welders	2	8
	Paving	Pavers	4	8
		Paving Equipment	4	8
		Rollers	4	8
	Architectural Coating	Air Compressors	1	8
Off-Site Construction	Linear, Grubbing & Land Clearing	Crawler Tractors	1	8
		Excavators	3	8
		Graders	1	8
		Rollers	2	8
		Rubber Tired Loaders	1	8
		Scrapers	2	8
		Signal Boards	1	8
		Tractors/Loaders/Backhoes	2	8
	Linear, Grading & Excavation	Air Compressors	1	8
		Generator Sets	1	8
		Graders	1	8
		Plate Compactors	1	8
		Pumps	1	8
		Rough Terrain Forklifts	1	8
		Scrapers	2	8
		Signal Boards	1	8
		Tractors/Loaders/Backhoes	2	8

TABLE 5-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (3 OF 3)

Construction Activity		Equipment[1]	Amount	Hours Per
Off-Site Construction	Linear, Paving	Pavers	1	8
		Paving Equipment	1	8
		Rollers	3	8
		Signal Boards	1	8
		Tractors/Loaders/Backhoes	2	8

5.3 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.

5.3.1 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.

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 (27). As shown on Table 5-3, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $31,599.54.

TABLE 5-3: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Project Construction				
Warehousing (75%)	$2.66	394.230	13	$13,632.47
High-Cube Cold Storage Warehouse (25%)				
Landscape	$2.66	78.625	13	$2,718.85
Parking	$2.66	80.160	13	$2,771.93
Other Asphalt Surfaces	$2.66	210.010	13	$7,262.15
CONSTRUCTION POWER COST				***$26,385.40***
Off-Site Construction				
Road Construction	$2.66	217.800	9	$5,214.13
TOTAL PROJECT CONSTRUCTION COST				***$31,599.54***

5.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 5-3) 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 March 1, 2024, SCE's general service rate is $0.15 per kilowatt hours (kWh) of electricity for general services (28). As shown on Table 5-4, the total electricity usage from on-site Project construction related activities is estimated to be approximately 210,664 kWh.

TABLE 5-4: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Project Construction		
Warehousing (75%)	$0.15	90,883
High-Cube Cold Storage Warehouse (25%)		
Landscape	$0.15	18,126
Parking	$0.15	18,480
Other Asphalt Surfaces	$0.15	48,414
CONSTRUCTION ELECTRICITY USAGE		***175,903***
Off-Site Construction		
Road Construction	$0.15	34,761
TOTAL CONSTRUCTION ELECTRICITY USAGE		***210,664***

5.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course 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 5-5. 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 (29). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered

which is consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region[2].

As presented in Table 4-5, Project construction activities would consume an estimated 111,151 gallons of diesel fuel and 88 gallons of gasoline. 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.

[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.

TABLE 5-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption	
								Gasoline	Diesel
Project Construction									
Demolition/Crushing	20	Concrete/Industrial Saws	33	1	8	0.73	193		208
		Excavators	36	3	8	0.38	328		355
		Rubber Tired Dozers	367	2	8	0.4	2,349		2,539
		Crushing/Proc. Equipment	12	1	8	0.85	82	88	
Site Preparation	10	Rubber Tired Dozers	367	3	8	0.4	3,523		1,904
		Crawler Tractors	87	4	8	0.43	1,197		647
Grading	30	Excavators	36	2	8	0.38	219		355
		Graders	148	1	8	0.41	485		787
		Rubber Tired Dozers	367	1	8	0.4	1,174		1,904
		Scrapers	423	2	8	0.48	3,249		5,268
		Crawler Tractors	87	2	8	0.43	599		971
Building Construction	200	Cranes	367	2	8	0.29	1,703		18,410
		Forklifts	82	5	8	0.2	656		7,092
		Generator Sets	14	2	8	0.74	166		1,792
		Tractors/Loaders/Backhoes	84	5	8	0.37	1,243		13,440
		Welders	46	2	8	0.45	331		3,581
Paving	10	Pavers	81	4	8	0.42	1,089		588
		Paving Equipment	89	4	8	0.36	1,025		554
		Rollers	36	4	8	0.38	438		237
Architectural Coating	40	Air Compressors	37	1	8	0.48	142		307

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption	
								Gasoline	Diesel
CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								***88***	***60,940***
Off-Site Construction									
Linear, Grading & Excavation	100	Crawler Tractors	87	1	8	0.43	299		1,618
		Excavators	36	3	8	0.38	328		1,775
		Graders	148	1	8	0.41	485		2,624
		Rollers	36	2	8	0.38	219		1,183
		Rubber Tired Loaders	150	1	8	0.36	432		2,335
		Scrapers	423	2	8	0.48	3,249		17,560
		Signal Boards	6	1	8	0.82	39		213
		Tractors/Loaders/Backhoes	84	2	8	0.37	497		2,688
Linear, Drainage, Utilities, & Sub-Grade	67	Air Compressors	37	1	8	0.48	142		515
		Generator Sets	14	1	8	0.74	83		300
		Graders	148	1	8	0.41	485		1,758
		Plate Compactors	8	1	8	0.43	28		100
		Pumps	11	1	8	0.74	65		236
		Rough Terrain Forklifts	96	1	8	0.40	307		1,113
		Scrapers	423	2	8	0.48	3,249		11,765
		Signal Boards	6	1	8	0.82	39		143
		Tractors/Loaders/Backhoes	84	2	8	0.37	497		1,801
Linear, Paving	33	Pavers	81	1	8	0.42	272		485
		Paving Equipment	89	1	8	0.36	256		457
		Rollers	36	3	8	0.38	328		586
		Signal Boards	6	1	8	0.82	39		70

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption	
								Gasoline	Diesel
		Tractors/Loaders/Backhoes	84	2	8	0.37	497		887
OFF-SITE CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								***0***	***50,211***
TOTAL CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								***88***	***111,151***

5.3.4 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 5-6. It should be noted that for Vendor Trips, specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips are more likely to occur during all phases of construction. As such, the analysis has been revised so that the default trips are ratioed between Demolition, Site Preparation, Grading, Building Construction, and Paving activities based on the number of days. It should be noted that because Architectural Coating activities overlap with Building Construction, the analysis assumes that the vendor trips assigned to Building Construction cover Architectural Coating as well.

TABLE 5-6: CONSTRUCTION TRIPS AND VMT

Construction Activity		Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Project Construction	Demolition/Crushing	18	5	836
	Site Preparation	18	3	0
	Grading	20	7	0
	Building Construction	166	42	0
	Paving	30	2	0
	Architectural Coating	33	6	0
Off-Site Construction	Linear, Grubbing & Land Clearing	33	1	0
	Linear, Grading & Excavation	28	0	0
	Linear, Paving	20	0	0

5.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 597,092 VMT during construction (23). 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 (LDT1[3]), and 25% are from light-duty-trucks (LDT2[4]). 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 (25). EMFAC2021 was

[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 (SC) sub-area for the 2026 and 2027 calendar years. Data from EMFAC2021 is shown in Appendix 5.3.

Table 5-7 provides an estimated annual fuel consumption resulting from Project construction worker trips. Based on Table 5-7, it is estimated that 20,501 gallons of fuel will be consumed related to construction worker trips 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 5-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Project Construction							
2026	LDA						
	Demolition/Crushing	20	9	13.38	2,408	33.47	72
	Site Preparation	10	9	13.38	1,204	33.47	36
	Grading	30	10	13.38	4,014	33.47	120
	Building Construction	200	83	13.38	222,108	33.47	6,635
	LDT1						
	Demolition/Crushing	20	5	13.38	1,338	25.64	52
	Site Preparation	10	5	13.38	669	25.64	26
	Grading	30	5	13.38	2,007	25.64	78
	Building Construction	200	42	13.38	112,392	25.64	4,383
	LDT2						
	Demolition/Crushing	20	5	13.38	1,338	25.93	52
	Site Preparation	10	5	13.38	669	25.93	26
	Grading	30	5	13.38	2,007	25.93	77
	Building Construction	200	42	13.38	112,392	25.93	4,334
2027	LDA						
	Paving	10	15	13.38	2,007	34.38	58
	Architectural Coating	40	17	13.38	9,098	34.38	265
	LDT1						
	Paving	10	8	13.38	1,070	26.20	41
	Architectural Coating	40	9	13.38	4,817	26.20	184

Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
	LDT2						
	Paving	10	8	13.38	1,070	26.60	40
	Architectural Coating	40	9	13.38	4,817	26.60	181
PROJECT CONSTRUCTION FUEL DEMAND (GALLONS FUEL)							**16,660**
Off-Site Construction							
2026	LDA						
	Linear, Grading & Excavation	100	17	18.5	31,450	33.47	940
	Linear, Drainage, Utilities, & Sub-Grade	67	14	18.5	17,353	33.47	518
	Linear, Paving	33	10	18.5	6,105	33.47	182
	LDT1						
	Linear, Grading & Excavation	100	9	18.5	16,650	25.64	649
	Linear, Drainage, Utilities, & Sub-Grade	67	7	18.5	8,677	25.64	338
	Linear, Paving	33	5	18.5	3,053	25.64	119
	LDT2						
	Linear, Grading & Excavation	100	9	18.5	16,650	25.93	642
	Linear, Drainage, Utilities, & Sub-Grade	67	7	18.5	8,677	25.93	335
	Linear, Paving	33	5	18.5	3,053	25.93	118
OFF-SITE CONSTRUCTION FUEL DEMAND (GALLONS FUEL)							***3,841***
TOTAL CONSTRUCTION FUEL DEMAND (GALLONS FUEL)							***20,501***

5.3.6 CONSTRUCTION VENDOR FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 411,910 VMT along area roadways for the Project over the duration of construction activity (23). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT) and 50% of vendor trips are from heavy-heavy duty trucks (HHDT). These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (23). 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 (SC) sub-area for the 2026 and 2027 calendar years. Data from EMFAC2021 is shown in Appendix 5.3.

Based on Table 5-8, it is estimated that 64,306 gallons of fuel will be consumed related to construction vendor 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 5-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Year	**Construction Activity**	**Duration** (Days)	**Vendor** (Trips/Day)	**Trip Length** (miles)	**Vehicle Miles Traveled**	**Average Vehicle Fuel Economy** (mpg)	**Estimated Fuel Consumption** (gallons)
Project Construction							
2026	MHDT						
	Demolition/Crushing	20	3	8.33	500	8.59	58
	Site Preparation	10	2	8.33	167	8.59	19
	Grading	30	4	8.33	1,000	8.59	116
	Building Construction	200	21	8.33	34,986	8.59	4,074
	HHDT (Vendor)						
	Demolition/Crushing	20	3	8.33	500	6.24	80
	Site Preparation	10	2	8.33	167	6.24	27
	Grading	30	4	8.33	1,000	6.24	160
	Building Construction	200	21	8.33	34,986	6.24	5,607
	HHDT (Hauling)						
	Demolition/Crushing	20	836	20	334,400	6.24	53,588
2027	MHDT						
	Paving	10	1	8.33	83	8.73	10
	Architectural Coating	40	3	8.33	1,000	8.73	114
	HHDT (Vendor)						
	Paving	10	1	8.33	83	6.37	13
	Architectural Coating	40	3	8.33	1,000	6.37	157
PROJECT CONSTRUCTION VENDOR FUEL CONSUMPTION							***64,024***
Off-Site Construction							
	MHDT						

Year	**Construction Activity**	**Duration** (Days)	**Vendor** (Trips/Day)	**Trip Length** (miles)	**Vehicle Miles Traveled**	**Average Vehicle Fuel Economy** (mpg)	**Estimated Fuel Consumption** (gallons)
2026	Linear, Grading & Excavation	100	1	10.2	1,020	8.59	119
	HHDT (Vendor)						
	Linear, Grading & Excavation	100	1	10.2	1,020	6.24	163
OFF-SITE CONSTRUCTION VENDOR FUEL CONSUMPTION							***282***
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION							***64,306***

5.3.7 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. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

5.4 OPERATIONAL ENERGY DEMANDS

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

5.4.1 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 (25). EMFAC2021 was run for the San Bernardino (SC) sub-area for calendar year 2027. Data from EMFAC2021 is shown in Appendix 5.3.

As summarized on Table 5-9, the Project will result in 2,901,735 annual VMT and an estimated annual fuel consumption of 264,693 gallons of fuel.

TABLE 5-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Miles Traveled[1]	Estimated Annual Fuel Consumption (gallons)
LDA	34.38	1,051,928	30,601
LDT1	26.20	81,052	3,094
LDT2	26.60	448,321	16,857
MDV	21.67	323,041	14,908
LHD1	17.03	345,232	20,267
LHD2	15.90	94,498	5,942
MHDT	8.73	361,295	41,363
HHDT	6.37	1,194,050	187,504
MCY	42.45	44,033	1,037
TOTAL FUEL CONSUMPTION (ALL VEHICLES)		***3,943,451***	***321,573***
EXISTING		*1,041,716*	*56,880*
NET FUEL CONSUMPTION (ALL VEHICLES)		***2,901,735***	***264,693***

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

5.4.2 TRANSPORTATION REFRIGERATION UNIT ENERGY DEMANDS

Energy would be consumed by truck and trailer mounted transportation refrigeration units (TRUs) that visit the Project site. For modeling purposes, it was estimated that 74 two-way truck trips (37 trucks) have the potential to include TRUs. TRU fuel consumption was estimated using information generated from EMFAC2017 for the San Bernardino South Coast sub-area. It is estimated that the Project will result in an estimated annual fuel consumption of 34,414 gallons due to the use of TRUs.

TABLE 5-10: TRU FUEL CONSUMPTION ESTIMATES

TRU Type	Trucks	Number of Days	Operating Hours	Rate	Total Fuel Consumption
Truck	17	365	4	0.55	13,750
Trailer	20	365	4	0.71	20,664
TRU FUEL DEMAND (GALLONS DIESEL FUEL)					***34,414***

5.4.3 STATIONARY SOURCE ENERGY DEMANDS

Fuel consumption estimates from stationary sources are presented in Table 5-11. As previously stated, the aggregate fuel consumption rate for all equipment is estimated at 18.5 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. For the purposes of this analysis, the calculations are based on a 300 hp diesel-fueled generator. Diesel fuel would be supplied by existing commercial fuel providers serving the City and region. As presented in Table 5-11, Project stationary sources would consume an estimated 592 gallons of diesel fuel.

TABLE 5-11: STATIONARY SOURCE EQUIPMENT FUEL CONSUMPTION ESTIMATES

Equipment	HP Rating	Quantity	Usage Hours	Annual Hourly Usage	Load Factor	HP-hrs/day	Total Fuel Consumption
Fire Pump	300	1	1	50	0.73	219	592
STATIONARY SOURCE FUEL DEMAND (GALLONS DIESEL FUEL)							***592***

5.4.4 ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMANDS

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to one (1) 175 horsepower (hp), natural gas-powered cargo handling equipment – port tractors operating at 4 hours a day[5] for 365 days of the year.

Project operational activity estimates and associated fuel consumption estimates are based on the annual EMFAC2021 offroad emissions for the 2027 operational year and was used to derive the total annual fuel consumption associated on-site equipment. As presented in Table 5-12, Project on-site equipment would consume an estimated 4,642 gallons of natural gas.

TABLE 5-12: ON-SITE CARGO HANDLING EQUIPMENT FUEL CONSUMPTION ESTIMATES

Equipment	Quantity	Usage Hours	Days of Operation	EMFAC2021 Fuel Consumption (gal./yr)	EMFAC2021 Activity (hrs./yr)	Total Fuel Consumption
Cargo Handling Equipment	1	4	365	18,742	5,895	4,642
ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMAND (GALLONS FUEL)						***4,642***

5.4.5 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of electricity, which would be supplied to the Project by SCE. As previously stated, the analysis herein assumes compliance

[5] Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

with the 2022 Title 24 and CALGreen standards. Annual electricity demands of the Project are summarized in Table 5-13 and provided in Appendix 5.2.

Based on information provided by the Project Applicant, the Project would not use natural gas for the building envelope. As such, natural gas consumption has not been analyzed in this study.

TABLE 5-13: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Warehousing (75%)	0	1,774,644
High-Cube Cold Storage Warehouse (25%)	0	218,954
Landscape	0	0
Parking	0	70,212
Other Asphalt Surfaces	0	0
TOTAL PROJECT ENERGY DEMAND	***0***	***2,063,810***
EXISTING	1,387,780	337,165
NET PROJECT ENERGY DEMAND	***-1,387,780***	***1,726,645***

kBTU – kilo-British Thermal Units

5.4.6 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 5-9 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.

5.5 COMPARISON TO GENERAL PLAN ENVIRONMENTAL IMPACT REPORT LAND USES

5.4.1 TRANSPORTATION ENERGY DEMANDS COMPARISON

The Project is proposing an addendum to the City's current General Plan Environmental Impact Report (EIR). The General Plan identifies a land use designation of General Industrial which allows up to 0.6 floor area ratio (FAR) of development on the site. The Project site is 18.11 acres which equates to 473,323 square feet of General Industrial uses comprised of 236,662 square feet of General Light Industrial use and 236,661 square feet of Warehousing use that could be allowed under the current General Plan. Table 5-14 summarizes the fuel consumption associated with 473,323 square feet of General Industrial uses comprised of 236,662 square feet of General Light Industrial use and 236,661 square feet of Warehousing use as allowed under the current General Plan.

Table 5-15 shows the emissions comparison between the 473,323 square feet of General Industrial (236,662 square feet of General Light Industrial use + 236,661 square feet of Warehousing) as allowed under the current General Plan to the proposed Project's 390,778 square-foot warehouse building (comprising of 98,808 square feet of high-cube cold storage warehouse use and 296,442 square feet of warehousing use). As shown, the Project is anticipated to consume less fuel compared to what could occur with the allowable use under the current General Plan.

TABLE 5-14: TOTAL GENERAL PLAN LAND USE-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
LDA	34.38	3,571,339	103,893
LDT1	26.20	275,176	10,504
LDT2	26.60	1,522,069	57,230
MDV	21.67	1,096,736	50,612
LHD1	17.03	230,451	13,528
LHD2	15.90	63,074	3,966
MHDT	8.73	362,085	41,453
HHDT	6.37	1,106,246	173,716
MCY	42.45	149,495	3,522
TOTAL FUEL CONSUMPTION (ALL VEHICLES)		***8,376,672***	***458,425***

TABLE 5-15: TRAFFIC ANNUAL FUEL CONSUMPTION COMPARISON (GENRAL PLAN VS. PROJECT)

Source	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
General Plan	8,376,672	458,425
Proposed Project	3,943,451	321,573
VARIANCE (PROPOSED – GENERAL PLAN)	***-4,433,221***	***-136,852***

5.5.2 FACILITY ENERGY DEMANDS

Table 5-16 summarizes the energy usage associated with 236,662 square feet of Warehousing use and 236,662 square feet of General Light Industrial use for the General Plan Land Use.

Table 5-17 shows the energy usage comparison between the currently-adopted General Plan land use and the proposed Project. As shown, the proposed Project is anticipated to use less energy compared to the energy usage associated with the land uses assumed under the General Plan EIR.

TABLE 5-16: GENERAL PLAN LAND USE ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Warehousing	4,499,105	1,093,072
General Light Industrial	10,149,513	2,257,217
TOTAL ENERGY DEMAND	***14,648,618***	***3,350,289***

TABLE 5-17: ANNUAL OPERATIONAL ENERGY DEMAND COMPARISON

Source	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
General Plan	14,648,618	3,350,289
Proposed Project	0	2,063,810
VARIANCE (PROPOSED – GENERAL PLAN)	***-14,648,618***	***-1,286,479***

5.6 SUMMARY

5.6.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $31,599.54. 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 210,664 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 111,151 gallons of diesel fuel and 88 gallons of gasoline. 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 20,501 gallons of fuel. Additionally, fuel consumption from construction hauling and vendor trips (MHDTs and HHDTs) will total approximately 64,306 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies 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 (30). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

5.6.2 OPERATIONAL ENERGY DEMANDS

TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project will result in a net increase of 2,901,735 annual VMT and an estimated net increase of annual fuel consumption of 264,693 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other 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. 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. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. 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 at a net decrease of 1,387,780 kBTU/year of natural gas and a net increase of 1,726,645 kWh/year of electricity for Project Buildout. Electricity would be supplied by SCE. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other uses of similar scale and configuration.

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.

This page intentionally left blank

6 CONCLUSIONS

6.1 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 the Project, construction-related vehicle trips would result in approximately 1,009,002 VMT and consume an estimated 84,807 of diesel fuel during the construction phases. Additionally, on-site construction equipment would consume an estimated 111,074 gallons diesel fuel and 88 gallons of gasoline fuel. 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 CARB. 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 on CalEEMod energy use estimations, operations for the Project would result in approximately net decrease of 1,387,780 kBTU/year of natural gas and a net increase of 1,726,645 kWh/year of electricity for Project Buildout annually.

Development of the Project 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 visitors and employees associated with the Project. Based on CalEEMod energy use estimations, project-related vehicle trips would result in an approximately net increase of 2,901,735 annual VMT and an estimated net increase of annual fuel consumption of 264,693 gallons of fuel.

The Project is surrounded by existing urban uses, the existing transportation facilities and infrastructure would provide 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. 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.

6.2 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 6.1, 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. CCR Title 13, Sections 2449 and 2485, limit idling from both on- road and off-road diesel-powered equipment and are enforced by the CARB. 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% by 2040. Similarly, the State is promoting renewable energy targets to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 6.1, above, the Project would result in approximately a net decrease of 1,387,780 kBTU/year of natural gas and a net increase of 1,726,645 kWh/year of electricity.

Development of the Project 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.

This page intentionally left blank

7 REFERENCES

1. **Association of Environmental Professionals.** *2023 CEQA California Environmental Quality Act.* 2023.
2. **Administration, U.S. Energy Information.** California State Profile and Energy Estimates. [Online] https://www.eia.gov/state/data.php?sid=CA#ConsumptionExpenditures.
3. **U.S. Energy Information Administration.** Use of Energy in the United States Explained Energy Use for Transportation. [Online] https://www.eia.gov/energyexplained/use-of-energy/transportation.php.
4. —. Use of Energy in the United States Explained Energy Use for Transportation. [Online] https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTPUPUS1&f=A.
5. —. Prime Supplier Sales Volume, California, Annual. [Online] 2021. https://www.eia.gov/dnav/pet/pet_cons_prim_dcu_SCA_a.htm.
6. —. California Energy Consumption by End-Use Sector. *California State Profile and Energy Estimates.* [Online] https://www.eia.gov/state/?sid=CA#tabs-2.
7. —. California State Profile and Energy Estimates. [Online] https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_use_es.pdf.
8. —. California State Profile and Energy Estimates. [Online] https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.
9. **California Energy Commission.** 2022 Total System Electric Generation. *CA.gov.* [Online] https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation.
10. **U.S. Energy Information Administration.** California State Profile and Energy Estimates. [Online] https://www.eia.gov/state/?sid=CA.
11. **California Energy Commission.** Integrated Energy Policy Report. [Online] https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report.
12. **California ISO.** Understanding the ISO. [Online] http://www.caiso.com/about/Pages/OurBusiness/UnderstandingtheISO/default.aspx.
13. **Southern California Edison.** *Southern California Edison's Service Area.* [Online] https://download.newsroom.edison.com/create_memory_file/?f_id=5cc32d492cfac24d21aecf4c&content_verified=True.
14. **Southern Californai Edison.** 2022 Power Content Label. *Southern California Edison.* [Online] https://www.sce.com/sites/default/files/custom-files/PDF_Files/SCE_2022_Power_Content_Label_B%26W.pdf.
15. **California Public Utilities Commission.** Natural Gas and California. [Online] https://www.cpuc.ca.gov/industries-and-topics/natural-gas/natural-gas-and-california.
16. **U.S. Energy Information Administration.** California Analysis. *Energy Information Administration.* [Online] https://www.eia.gov/beta/states/states/ca/analysis.
17. **California Energy Commission Staff.** 2023 Integrated Energy Policy Report Update. [Online] 2024. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report.
18. **California Energy Commission.** Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions from Homes and Businesses. [Online] August 11, 2021.

https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0.

19. **California Department of General Services.** 2022 CALGreen Code. *CALGreen.* [Online] https://codes.iccsafe.org/content/CAGBC2022P1.
20. **California Energy Commission.** Renewables Portfolio Standard (RPS). [Online] 2002. http://www.energy.ca.gov/portfolio/.
21. **State of California.** *California Environmental Quality Act Guideline, California Public Resources Code, Title 14, Division 6, Chapter 3,.*
22. **Association of Environmental Professionals.** *2019 CEQA California Environmental Quality Act.* 2019.
23. **Urban Crossroads, Inc.** *Chino Distribution Center Air Quality Impact Analysis.* 2024.
24. **California Air Pollution Control Officers Association (CAPCOA).** California Emissions Estimator Model (CalEEMod). [Online] May 2023. www.caleemod.com.
25. **California Department of Transportation.** EMFAC Software. [Online] http://www.dot.ca.gov/hq/env/air/pages/emfac.htm.
26. **State of California.** *2019 CEQA California Environmental Quality Act.* 2019.
27. **Pray, Richard.** *2024 National Construction Estimator.* Carlsbad : Craftsman Book Company, 2024.
28. **Southern California Edison.** General Service Schedules GS-1. *Regulatory Information - Rates Pricing.* [Online] https://edisonintl.sharepoint.com/teams/Public/TM2/Shared%20Documents/Forms/AllItems.aspx?ga=1&id=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FGeneral%20Service%20%26%20Industr.
29. **California Air Resources Board.** *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects For Evaluating Motor Vehicle Registration Fee Projects And Congestion Mitigation and Air Quality Improvement (CMAQ) Projects, Emission Factor Tables.* 2018.
30. **California Energy Commission Staff.** 2021 Integrated Energy Policy Report. [Online] https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report.

This page intentionally left blank

8 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Chino Distribution Center. 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.

Haseeb Qureshi
Principal
Urban Crossroads, Inc.
hqureshi@urbanxroads.com

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 Professionals
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

This page intentionally left blank

APPENDIX 4.1:

CALEEMOD EXISTING OPERATIONAL EMISSIONS MODEL OUTPUTS

5088 Edison (Existing) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5088 Edison (Existing)
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	33.99915102972773, -117.6945989806811
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5218
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

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
Unrefrigerated Warehouse-No Rail	73.0	1000sqft	10.6	73,000	0.00	—	—	—

User Defined Industrial	73.0	User Defined Unit	0.00	0.00	0.00	—	—	Passenger Cars for Warehouse
Other Asphalt Surfaces	6.89	Acre	6.89	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	1.58	3.10	3.17	13.6	0.04	0.08	2.91	2.98	0.07	0.75	0.82	69.3	5,296	5,366	7.28	0.46	14.9	5,700
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.98	2.55	3.29	8.77	0.04	0.07	2.91	2.98	0.07	0.75	0.82	69.3	5,129	5,198	7.28	0.46	0.39	5,519
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.11	2.70	2.56	8.89	0.03	0.06	2.11	2.18	0.06	0.54	0.61	69.3	4,012	4,081	7.23	0.36	4.69	4,374
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.49	0.47	1.62	0.01	0.01	0.39	0.40	0.01	0.10	0.11	11.5	664	676	1.20	0.06	0.78	724

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	0.97	0.77	2.77	10.1	0.04	0.04	2.91	2.95	0.04	0.75	0.79	—	4,410	4,410	0.19	0.37	14.9	4,541
Area	0.56	2.32	0.03	3.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.1	13.1	< 0.005	< 0.005	—	13.1
Energy	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	765	765	0.07	< 0.005	—	768
Water	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
Waste	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Total	1.58	3.10	3.17	13.6	0.04	0.08	2.91	2.98	0.07	0.75	0.82	69.3	5,296	5,366	7.28	0.46	14.9	5,700
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.73	2.92	8.46	0.04	0.04	2.91	2.95	0.04	0.75	0.79	—	4,256	4,256	0.19	0.38	0.39	4,374
Area	—	1.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	765	765	0.07	< 0.005	—	768
Water	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
Waste	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Total	0.98	2.55	3.29	8.77	0.04	0.07	2.91	2.98	0.07	0.75	0.82	69.3	5,129	5,198	7.28	0.46	0.39	5,519
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.68	0.53	2.17	6.40	0.03	0.03	2.11	2.14	0.03	0.54	0.57	—	3,129	3,129	0.14	0.28	4.69	3,220
Area	0.39	2.15	0.02	2.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.94	8.94	< 0.005	< 0.005	—	8.97
Energy	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	765	765	0.07	< 0.005	—	768
Water	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
Waste	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Total	1.11	2.70	2.56	8.89	0.03	0.06	2.11	2.18	0.06	0.54	0.61	69.3	4,012	4,081	7.23	0.36	4.69	4,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.10	0.40	1.17	0.01	0.01	0.39	0.39	0.01	0.10	0.10	—	518	518	0.02	0.05	0.78	533

Area	0.07	0.39	< 0.005	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	127	127	0.01	< 0.005	—	127
Water	—	—	—	—	—	—	—	—	—	—	—	5.36	18.0	23.4	0.55	0.01	—	41.1
Waste	—	—	—	—	—	—	—	—	—	—	—	6.12	0.00	6.12	0.61	0.00	—	21.4
Total	0.20	0.49	0.47	1.62	0.01	0.01	0.39	0.40	0.01	0.10	0.11	11.5	664	676	1.20	0.06	0.78	724

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.73	0.67	0.39	8.49	0.02	0.01	1.94	1.95	0.01	0.49	0.50	—	1,954	1,954	0.06	0.04	5.78	1,974
User Defined Industrial	0.24	0.10	2.38	1.60	0.02	0.04	0.96	1.00	0.03	0.26	0.29	—	2,456	2,456	0.13	0.33	9.07	2,567
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	0.97	0.77	2.77	10.1	0.04	0.04	2.91	2.95	0.04	0.75	0.79	—	4,410	4,410	0.19	0.37	14.9	4,541
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.70	0.64	0.44	6.86	0.02	0.01	1.94	1.95	0.01	0.49	0.50	—	1,799	1,799	0.06	0.05	0.15	1,815
User Defined Industrial	0.23	0.09	2.48	1.60	0.02	0.04	0.96	1.00	0.03	0.26	0.29	—	2,456	2,456	0.13	0.33	0.24	2,559
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	0.93	0.73	2.92	8.46	0.04	0.04	2.91	2.95	0.04	0.75	0.79	—	4,256	4,256	0.19	0.38	0.39	4,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.09	0.08	0.06	0.95	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	221	221	0.01	0.01	0.30	223
User Defined Industrial	0.03	0.01	0.34	0.21	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.04	—	297	297	0.02	0.04	0.47	310
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	0.12	0.10	0.40	1.17	0.01	0.01	0.39	0.39	0.01	0.10	0.10	—	518	518	0.02	0.05	0.78	533

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.03	< 0.005	—	322
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.03	< 0.005	—	322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.03	< 0.005	—	322
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.03	< 0.005	—	322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	52.9	52.9	0.01	< 0.005	—	53.3
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	52.9	52.9	0.01	< 0.005	—	53.3

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	445	445	0.04	< 0.005	—	446
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	445	445	0.04	< 0.005	—	446
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	445	445	0.04	< 0.005	—	446
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	445	445	0.04	< 0.005	—	446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	73.6	73.6	0.01	< 0.005	—	73.8
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	73.6	73.6	0.01	< 0.005	—	73.8

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	—	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.56	0.52	0.03	3.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.1	13.1	< 0.005	< 0.005	—	13.1
Total	0.56	2.32	0.03	3.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.1	13.1	< 0.005	< 0.005	—	13.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.07	0.07	< 0.005	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49
Total	0.07	0.39	< 0.005	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.48	1.48	< 0.005	< 0.005	—	1.49

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	32.3	109	141	3.33	0.08	—	248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.36	18.0	23.4	0.55	0.01	—	41.1
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	5.36	18.0	23.4	0.55	0.01	—	41.1

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.12	0.00	6.12	0.61	0.00	—	21.4
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	6.12	0.00	6.12	0.61	0.00	—	21.4

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Unrefrigerated Warehouse-No Rail	178	15.0	6.06	47,500	2,788	236	94.9	744,136
User Defined Industrial	48.0	4.06	1.63	12,810	1,115	94.3	37.8	297,580
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	109,500	36,500	18,008

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
Unrefrigerated Warehouse-No Rail	337,165	346	0.0330	0.0040	1,387,780
User Defined Industrial	0.00	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)
Unrefrigerated Warehouse-No Rail	16,881,250	0.00
User Defined Industrial	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)

Unrefrigerated Warehouse-No Rail	68.6	—
User Defined Industrial	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

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

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	16.9	annual days of extreme heat
Extreme Precipitation	5.05	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 ¾ 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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	74.2
AQ-PM	93.3
AQ-DPM	61.0
Drinking Water	98.6
Lead Risk Housing	21.4
Pesticides	16.7
Toxic Releases	63.9
Traffic	29.6
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	53.1

Haz Waste Facilities/Generators	97.1
Impaired Water Bodies	23.9
Solid Waste	64.4
Sensitive Population	—
Asthma	49.9
Cardio-vascular	83.2
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.7
Housing	8.50
Linguistic	52.0
Poverty	23.9
Unemployment	18.3

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	69.9088926
Employed	62.92826896
Median HI	80.39266008
Education	—
Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	4.221737457
Transportation	—
Auto Access	90.86359553

Active commuting	1.039394328
Social	—
2-parent households	33.23495445
Voting	60.79815219
Neighborhood	—
Alcohol availability	89.41357629
Park access	47.83780316
Retail density	58.01360195
Supermarket access	15.39843449
Tree canopy	23.0334916
Housing	—
Homeownership	95.07250096
Housing habitability	88.68215065
Low-inc homeowner severe housing cost burden	39.98460157
Low-inc renter severe housing cost burden	86.39804953
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	73.78416528
Arthritis	60.6
Asthma ER Admissions	42.8
High Blood Pressure	59.0
Cancer (excluding skin)	55.0
Asthma	61.7
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	58.5
Life Expectancy at Birth	24.1

Cognitively Disabled	60.3
Physically Disabled	69.8
Heart Attack ER Admissions	7.6
Mental Health Not Good	58.7
Chronic Kidney Disease	64.9
Obesity	52.9
Pedestrian Injuries	69.7
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	20.5
Current Smoker	62.2
No Leisure Time for Physical Activity	61.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	73.1
English Speaking	54.6
Foreign-born	44.6
Outdoor Workers	28.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.0
Traffic Density	32.4
Traffic Access	49.6
Other Indices	—
Hardship	49.8

Other Decision Support	—
2016 Voting	74.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0
Healthy Places Index Score for Project Location (b)	57.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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
Land Use	Total Area is 17.52 acres
Construction: Construction Phases	Construction anticipated to end in 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Architectural Coatings	Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic anlaysis

Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	No natural gas will be used as part of the Project

This page intentionally left blank

APPENDIX 5.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

5088 Edison (Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5088 Edison (Construction)
Construction Start Date	1/2/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	33.99915102972773, -117.6945989806811
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5218
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

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
Unrefrigerated Warehouse-No Rail	296	1000sqft	8.59	295,672	78,625	—	—	—

Refrigerated Warehouse-No Rail	98.6	1000sqft	2.26	98,558	0.00	—	—	—
Parking Lot	248	Space	1.84	0.00	0.00	—	—	—
Other Asphalt Surfaces	210	1000sqft	4.82	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.	3.41	2.84	21.3	34.8	0.05	0.77	1.86	2.63	0.71	0.45	1.16	—	7,531	7,531	0.35	0.26	8.42	7,626
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	43.8	48.0	91.4	106	0.42	2.17	62.1	64.2	1.96	11.3	13.3	—	60,572	60,572	5.83	9.14	3.02	63,445
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.71	5.35	20.2	27.3	0.06	0.70	4.81	5.51	0.64	1.02	1.67	—	8,121	8,121	0.52	0.65	4.79	8,334
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.86	0.98	3.70	4.98	0.01	0.13	0.88	1.01	0.12	0.19	0.30	—	1,345	1,345	0.09	0.11	0.79	1,380

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.41	2.84	21.3	34.8	0.05	0.77	1.86	2.63	0.71	0.45	1.16	—	7,531	7,531	0.35	0.26	8.42	7,626
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	43.8	37.1	91.4	106	0.42	2.17	62.1	64.2	1.96	11.3	13.3	—	60,572	60,572	5.83	9.14	3.02	63,445
2027	1.88	48.0	14.0	21.1	0.03	0.60	0.37	0.89	0.55	0.09	0.62	—	3,342	3,342	0.13	0.04	0.04	3,358
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.71	3.96	20.2	27.3	0.06	0.70	4.81	5.51	0.64	1.02	1.67	—	8,121	8,121	0.52	0.65	4.79	8,334
2027	0.09	5.35	0.54	0.90	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	166	166	0.01	0.01	0.08	168
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.86	0.72	3.70	4.98	0.01	0.13	0.88	1.01	0.12	0.19	0.30	—	1,345	1,345	0.09	0.11	0.79	1,380
2027	0.02	0.98	0.10	0.17	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	27.4	27.4	< 0.005	< 0.005	0.01	27.8

3. Construction Emissions Details

3.1. Demolition (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	36.8	36.2	21.5	67.1	0.03	1.43	—	1.43	1.22	—	1.22	—	3,504	3,504	0.14	0.03	—	3,516
Demolition	—	—	—	—	—	—	46.4	46.4	—	7.02	7.02	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.02	1.98	1.18	3.68	< 0.005	0.08	—	0.08	0.07	—	0.07	—	192	192	0.01	< 0.005	—	193
Demolition	—	—	—	—	—	—	2.54	2.54	—	0.38	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.36	0.22	0.67	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Demolition	—	—	—	—	—	—	0.46	0.46	—	0.07	0.07	—	—	—	—	—	—	—
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	0.08	0.07	0.06	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	166	166	< 0.005	0.01	0.02	168
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	131
Hauling	6.91	0.81	69.7	38.4	0.39	0.74	15.5	16.2	0.74	4.24	4.98	—	56,777	56,777	5.68	9.09	2.99	59,630
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.20	9.20	< 0.005	< 0.005	0.01	9.34
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.84	6.84	< 0.005	< 0.005	0.01	7.18
Hauling	0.38	0.05	3.84	2.10	0.02	0.04	0.85	0.89	0.04	0.23	0.27	—	3,110	3,110	0.31	0.50	2.73	3,269
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.55
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.13	1.13	< 0.005	< 0.005	< 0.005	1.19
Hauling	0.07	0.01	0.70	0.38	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	515	515	0.05	0.08	0.45	541

3.3. Site Preparation (2026) - Unmitigated

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

Location	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	4.56	3.83	34.6	31.0	0.05	1.77	—	1.77	1.62	—	1.62	—	5,532	5,532	0.22	0.04	—	5,551
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.95	0.85	< 0.005	0.05	—	0.05	0.04	—	0.04	—	152	152	0.01	< 0.005	—	152

Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
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	0.02	0.17	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.1	25.1	< 0.005	< 0.005	—	25.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	166	166	< 0.005	0.01	0.02	168
Vendor	0.01	< 0.005	0.09	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.0	75.0	0.01	0.01	0.01	78.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.60	4.60	< 0.005	< 0.005	0.01	4.67
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.15
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36

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. Grading (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	4.03	3.39	30.0	28.7	0.06	1.38	—	1.38	1.27	—	1.27	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
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	0.33	0.28	2.46	2.36	0.01	0.11	—	0.11	0.10	—	0.10	—	552	552	0.02	< 0.005	—	554
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.43	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.4	91.4	< 0.005	< 0.005	—	91.7

Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.84	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	184	184	< 0.005	0.01	0.02	186
Vendor	0.02	< 0.005	0.21	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	175	175	0.01	0.03	0.01	183
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	—	15.3	15.3	< 0.005	< 0.005	0.02	15.6
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.4	14.4	< 0.005	< 0.005	0.02	15.1
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	—	2.54	2.54	< 0.005	< 0.005	< 0.005	2.58
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.38	2.38	< 0.005	< 0.005	< 0.005	2.50
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	2.56	2.14	19.6	25.2	0.05	0.75	—	0.75	0.69	—	0.69	—	4,817	4,817	0.20	0.04	—	4,833
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	2.56	2.14	19.6	25.2	0.05	0.75	—	0.75	0.69	—	0.69	—	4,817	4,817	0.20	0.04	—	4,833
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	1.40	1.17	10.8	13.8	0.03	0.41	—	0.41	0.38	—	0.38	—	2,639	2,639	0.11	0.02	—	2,648
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	0.26	0.21	1.96	2.52	< 0.005	0.08	—	0.08	0.07	—	0.07	—	437	437	0.02	< 0.005	—	438
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	0.74	0.68	0.51	9.00	0.00	0.00	1.57	1.57	0.00	0.37	0.37	—	1,665	1,665	0.08	0.06	5.67	1,691
Vendor	0.11	0.02	1.20	0.67	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,049	1,049	0.08	0.16	2.75	1,102
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	0.70	0.63	0.56	6.95	0.00	0.00	1.57	1.57	0.00	0.37	0.37	—	1,528	1,528	0.03	0.06	0.15	1,548
Vendor	0.11	0.02	1.25	0.68	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,049	1,049	0.08	0.16	0.07	1,100
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	0.38	0.35	0.33	3.99	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	849	849	0.02	0.03	1.34	861
Vendor	0.06	0.01	0.69	0.37	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	575	575	0.04	0.09	0.65	603
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	0.07	0.06	0.06	0.73	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	141	141	< 0.005	0.01	0.22	143
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.2	95.2	0.01	0.01	0.11	99.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

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

Location	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	1.76	1.47	13.9	19.9	0.03	0.60	—	0.60	0.55	—	0.55	—	3,022	3,022	0.12	0.02	—	3,033
Paving	—	1.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.09	1.17	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	271	271	0.01	0.01	0.02	274
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.0	49.0	< 0.005	0.01	< 0.005	51.3
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.52	7.52	< 0.005	< 0.005	0.01	7.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.41
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
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 (2027) - 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	0.18	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	47.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6
Architectural Coatings	—	5.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	3.23	3.23	< 0.005	< 0.005	—	3.24

Architect Coatings	—	0.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.13	0.12	0.10	1.28	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	298	298	0.01	0.01	0.03	301
Vendor	0.02	< 0.005	0.23	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	196	196	0.01	0.03	0.01	205
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	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.1	33.1	< 0.005	< 0.005	0.05	33.5
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.5	21.5	< 0.005	< 0.005	0.02	22.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.48	5.48	< 0.005	< 0.005	0.01	5.55
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.56	3.56	< 0.005	< 0.005	< 0.005	3.73
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

4. Operations Emissions Details

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Demolition	Demolition	1/2/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/12/2026	5.00	10.0	—
Grading	Grading	2/13/2026	3/26/2026	5.00	30.0	—
Building Construction	Building Construction	3/27/2026	12/31/2026	5.00	200	—
Paving	Paving	1/1/2027	1/14/2027	5.00	10.0	—
Architectural Coating	Architectural Coating	1/15/2027	3/11/2027	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Crushing/Proc. Equipment	Gasoline	Average	1.00	8.00	12.0	0.85
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	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	2.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	5.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	4.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	4.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	4.00	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
Demolition	—	—	—	—
Demolition	Worker	18.0	13.4	LDA,LDT1,LDT2
Demolition	Vendor	5.00	8.33	HHDT,MHDT
Demolition	Hauling	836	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	13.4	LDA,LDT1,LDT2
Site Preparation	Vendor	3.00	8.33	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	13.4	LDA,LDT1,LDT2
Grading	Vendor	7.00	8.33	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	166	13.4	LDA,LDT1,LDT2
Building Construction	Vendor	42.0	8.33	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	30.0	13.4	LDA,LDT1,LDT2
Paving	Vendor	2.00	8.33	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	33.0	13.4	LDA,LDT1,LDT2
Architectural Coating	Vendor	8.00	8.33	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	591,345	197,115	17,410

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	66,862	—
Site Preparation	—	—	35.0	0.00	—
Grading	—	0.00	120	0.00	—
Paving	0.00	0.00	0.00	0.00	6.66

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.84	100%
Other Asphalt Surfaces	4.82	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	16.9	annual days of extreme heat
Extreme Precipitation	5.05	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 ¾ 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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	74.2
AQ-PM	93.3
AQ-DPM	61.0

Drinking Water	98.6
Lead Risk Housing	21.4
Pesticides	16.7
Toxic Releases	63.9
Traffic	29.6
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	53.1
Haz Waste Facilities/Generators	97.1
Impaired Water Bodies	23.9
Solid Waste	64.4
Sensitive Population	—
Asthma	49.9
Cardio-vascular	83.2
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.7
Housing	8.50
Linguistic	52.0
Poverty	23.9
Unemployment	18.3

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	69.9088926

Employed	62.92826896
Median HI	80.39266008
Education	—
Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	4.221737457
Transportation	—
Auto Access	90.86359553
Active commuting	1.039394328
Social	—
2-parent households	33.23495445
Voting	60.79815219
Neighborhood	—
Alcohol availability	89.41357629
Park access	47.83780316
Retail density	58.01360195
Supermarket access	15.39843449
Tree canopy	23.0334916
Housing	—
Homeownership	95.07250096
Housing habitability	88.68215065
Low-inc homeowner severe housing cost burden	39.98460157
Low-inc renter severe housing cost burden	86.39804953
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	73.78416528
Arthritis	60.6

Asthma ER Admissions	42.8
High Blood Pressure	59.0
Cancer (excluding skin)	55.0
Asthma	61.7
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	58.5
Life Expectancy at Birth	24.1
Cognitively Disabled	60.3
Physically Disabled	69.8
Heart Attack ER Admissions	7.6
Mental Health Not Good	58.7
Chronic Kidney Disease	64.9
Obesity	52.9
Pedestrian Injuries	69.7
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	20.5
Current Smoker	62.2
No Leisure Time for Physical Activity	61.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	73.1
English Speaking	54.6

Foreign-born	44.6
Outdoor Workers	28.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.0
Traffic Density	32.4
Traffic Access	49.6
Other Indices	—
Hardship	49.8
Other Decision Support	—
2016 Voting	74.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0
Healthy Places Index Score for Project Location (b)	57.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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
Land Use	Total Area is 17.52 acres
Construction: Construction Phases	Construction anticipated to end in 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Architectural Coatings	Rule 1113
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, Building Construction, Paving, and Architectural Coating

5088 Edison (Off-Site Improvements) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5088 Edison (Off-Site Improvements)
Construction Start Date	3/27/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	33.99915102972773, -117.6945989806811
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5218
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.24

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
Road Construction	0.50	Mile	5.00	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.	3.68	3.10	25.3	31.5	0.06	1.09	1.26	2.35	1.00	0.19	1.19	—	6,974	6,974	0.28	0.07	1.62	7,004
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.67	3.09	25.4	30.9	0.06	1.09	1.26	2.35	1.00	0.19	1.19	—	6,937	6,937	0.27	0.07	0.04	6,965
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65	1.39	11.5	14.1	0.03	0.48	0.56	1.04	0.44	0.09	0.53	—	3,181	3,181	0.12	0.03	0.33	3,195
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.30	0.25	2.10	2.58	0.01	0.09	0.10	0.19	0.08	0.02	0.10	—	527	527	0.02	0.01	0.05	529

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	3.68	3.10	25.3	31.5	0.06	1.09	1.26	2.35	1.00	0.19	1.19	—	6,974	6,974	0.28	0.07	1.62	7,004
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.67	3.09	25.4	30.9	0.06	1.09	1.26	2.35	1.00	0.19	1.19	—	6,937	6,937	0.27	0.07	0.04	6,965
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.65	1.39	11.5	14.1	0.03	0.48	0.56	1.04	0.44	0.09	0.53	—	3,181	3,181	0.12	0.03	0.33	3,195
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.30	0.25	2.10	2.58	0.01	0.09	0.10	0.19	0.08	0.02	0.10	—	527	527	0.02	0.01	0.05	529

3. Construction Emissions Details

3.1. Linear, Grading & Excavation (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	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.90	7.97	0.02	0.30	—	0.30	0.27	—	0.27	—	1,779	1,779	0.07	0.01	—	1,785
Dust From Material Movement	—	—	—	—	—	—	0.23	0.23	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.26	1.45	< 0.005	0.05	—	0.05	0.05	—	0.05	—	295	295	0.01	< 0.005	—	296
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.16	0.14	0.13	2.34	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	449	449	0.02	0.02	1.54	455
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.08	31.9
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.14	1.77	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	411	411	0.01	0.02	0.04	416
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	< 0.005	31.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.51	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.18	116
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.31	8.31	< 0.005	< 0.005	0.01	8.72
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.9	18.9	< 0.005	< 0.005	0.03	19.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.38	1.38	< 0.005	< 0.005	< 0.005	1.44
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. Linear, Drainage, Utilities, & Sub-Grade (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	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	0.69	0.69	—	0.07	0.07	—	—	—	—	—	—	—
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	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	0.69	0.69	—	0.07	0.07	—	—	—	—	—	—	—
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	0.52	0.44	3.88	4.28	0.01	0.15	—	0.15	0.14	—	0.14	—	1,045	1,045	0.04	0.01	—	1,049
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.71	0.78	< 0.005	0.03	—	0.03	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.13	0.12	0.11	1.98	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	380	380	0.02	0.01	1.30	385

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.50	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	348	348	0.01	0.01	0.03	352
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	0.02	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.8	64.8	< 0.005	< 0.005	0.10	65.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.02	10.9
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

3.5. Linear, 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	1.00	0.84	7.37	10.8	0.01	0.30	—	0.30	0.28	—	0.28	—	1,619	1,619	0.07	0.01	—	1,625

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	0.67	0.97	< 0.005	0.03	—	0.03	0.03	—	0.03	—	146	146	0.01	< 0.005	—	147
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	0.12	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	24.2	24.2	< 0.005	< 0.005	—	24.3
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.09	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.02	256
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	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.2	23.2	< 0.005	< 0.005	0.04	23.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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	—	3.84	3.84	< 0.005	< 0.005	0.01	3.89
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

4. Operations Emissions Details

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)

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Linear, Grading & Excavation	Linear, Grading & Excavation	3/27/2026	8/13/2026	5.00	100	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	8/14/2026	11/16/2026	5.00	67.0	—
Linear, Paving	Linear, Paving	11/17/2026	12/31/2026	5.00	33.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38

Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38

Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	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)

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)
Linear, Grading & Excavation	—	—	5.00	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	5.00	0.00	—

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
Road Construction	5.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	88.1	532	0.03	< 0.005

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	16.9	annual days of extreme heat
Extreme Precipitation	5.05	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 ¾ 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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	74.2
AQ-PM	93.3
AQ-DPM	61.0
Drinking Water	98.6
Lead Risk Housing	21.4
Pesticides	16.7
Toxic Releases	63.9
Traffic	29.6
Effect Indicators	—
CleanUp Sites	71.6

Groundwater	53.1
Haz Waste Facilities/Generators	97.1
Impaired Water Bodies	23.9
Solid Waste	64.4
Sensitive Population	—
Asthma	49.9
Cardio-vascular	83.2
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.7
Housing	8.50
Linguistic	52.0
Poverty	23.9
Unemployment	18.3

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	69.9088926
Employed	62.92826896
Median HI	80.39266008
Education	—
Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	4.221737457
Transportation	—

Auto Access	90.86359553
Active commuting	1.039394328
Social	—
2-parent households	33.23495445
Voting	60.79815219
Neighborhood	—
Alcohol availability	89.41357629
Park access	47.83780316
Retail density	58.01360195
Supermarket access	15.39843449
Tree canopy	23.0334916
Housing	—
Homeownership	95.07250096
Housing habitability	88.68215065
Low-inc homeowner severe housing cost burden	39.98460157
Low-inc renter severe housing cost burden	86.39804953
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	73.78416528
Arthritis	60.6
Asthma ER Admissions	42.8
High Blood Pressure	59.0
Cancer (excluding skin)	55.0
Asthma	61.7
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	58.5

Life Expectancy at Birth	24.1
Cognitively Disabled	60.3
Physically Disabled	69.8
Heart Attack ER Admissions	7.6
Mental Health Not Good	58.7
Chronic Kidney Disease	64.9
Obesity	52.9
Pedestrian Injuries	69.7
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	20.5
Current Smoker	62.2
No Leisure Time for Physical Activity	61.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	73.1
English Speaking	54.6
Foreign-born	44.6
Outdoor Workers	28.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.0
Traffic Density	32.4
Traffic Access	49.6
Other Indices	—

Hardship	49.8
Other Decision Support	—
2016 Voting	74.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0
Healthy Places Index Score for Project Location (b)	57.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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	Construction anticipated to be concurrent with Project Building Construction

This page intentionally left blank

APPENDIX 5.2:

CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS

5088 Edison (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5088 Edison (Operations)
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	33.99915102972773, -117.6945989806811
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5218
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

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
Unrefrigerated Warehouse-No Rail	296	1000sqft	8.59	295,672	78,625	—	—	—

User Defined Industrial	296	User Defined Unit	0.00	0.00	0.00	—	—	Passenger Cars for Warehouse
Refrigerated Warehouse-No Rail	98.6	1000sqft	2.26	98,558	0.00	—	—	—
User Defined Industrial	98.6	User Defined Unit	0.00	0.00	0.00	—	—	Passenger Cars for Cold Storage
Parking Lot	248	Space	1.84	0.00	0.00	—	—	—
Other Asphalt Surfaces	210	1000sqft	4.82	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	8.04	15.5	24.1	53.9	0.24	0.50	11.7	12.2	0.48	3.06	3.54	374	28,210	28,585	39.7	3.54	2,697	33,329
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.89	12.6	25.0	32.4	0.23	0.47	11.7	12.2	0.45	3.06	3.52	374	27,739	28,114	39.7	3.55	2,628	32,792
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.02	13.1	16.9	34.5	0.17	0.28	8.52	8.79	0.26	2.23	2.49	374	20,762	21,137	39.3	2.71	2,649	25,577
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.92	2.39	3.09	6.30	0.03	0.05	1.55	1.60	0.05	0.41	0.45	62.0	3,437	3,499	6.51	0.45	439	4,235

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	3.91	2.25	21.2	34.2	0.23	0.32	11.7	12.0	0.31	3.06	3.37	—	25,084	25,084	1.60	3.08	70.0	26,110
Area	3.05	12.3	0.14	17.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	70.5	70.5	< 0.005	< 0.005	—	70.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,957	1,957	0.19	0.02	—	1,969
Water	—	—	—	—	—	—	—	—	—	—	—	175	595	770	18.0	0.43	—	1,348
Waste	—	—	—	—	—	—	—	—	—	—	—	200	0.00	200	20.0	0.00	—	699
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	8.04	15.5	24.1	53.9	0.24	0.50	11.7	12.2	0.48	3.06	3.54	374	28,210	28,585	39.7	3.54	2,697	33,329
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.81	2.15	22.2	29.9	0.23	0.32	11.7	12.0	0.31	3.06	3.37	—	24,683	24,683	1.60	3.09	1.82	25,645
Area	—	9.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,957	1,957	0.19	0.02	—	1,969
Water	—	—	—	—	—	—	—	—	—	—	—	175	595	770	18.0	0.43	—	1,348
Waste	—	—	—	—	—	—	—	—	—	—	—	200	0.00	200	20.0	0.00	—	699
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Stationary	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	4.89	12.6	25.0	32.4	0.23	0.47	11.7	12.2	0.45	3.06	3.52	374	27,739	28,114	39.7	3.55	2,628	32,792

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.78	1.56	16.4	22.4	0.17	0.24	8.52	8.75	0.23	2.23	2.45	—	18,093	18,093	1.17	2.26	22.1	18,817
Area	2.09	11.4	0.10	11.7	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	48.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,957	1,957	0.19	0.02	—	1,969
Water	—	—	—	—	—	—	—	—	—	—	—	175	595	770	18.0	0.43	—	1,348
Waste	—	—	—	—	—	—	—	—	—	—	—	200	0.00	200	20.0	0.00	—	699
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Stationary	0.15	0.13	0.38	0.34	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	69.0	69.0	< 0.005	< 0.005	0.00	69.2
Total	5.02	13.1	16.9	34.5	0.17	0.28	8.52	8.79	0.26	2.23	2.49	374	20,762	21,137	39.3	2.71	2,649	25,577
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.51	0.29	3.00	4.09	0.03	0.04	1.55	1.60	0.04	0.41	0.45	—	2,995	2,995	0.19	0.37	3.66	3,115
Area	0.38	2.08	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.00	8.00	< 0.005	< 0.005	—	8.02
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	324	324	0.03	< 0.005	—	326
Water	—	—	—	—	—	—	—	—	—	—	—	28.9	98.5	127	2.98	0.07	—	223
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.30	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	435	435
Stationary	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.92	2.39	3.09	6.30	0.03	0.05	1.55	1.60	0.05	0.41	0.45	62.0	3,437	3,499	6.51	0.45	439	4,235

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.36	1.24	0.73	15.8	0.04	0.01	3.60	3.62	0.01	0.91	0.92	—	3,623	3,623	0.11	0.08	10.7	3,660
User Defined Industrial	1.98	0.49	20.2	12.0	0.18	0.30	6.62	6.92	0.29	1.78	2.07	—	19,968	19,968	1.44	2.96	54.9	20,942
Refrigerated Warehouse-No Rail	0.56	0.51	0.30	6.49	0.01	0.01	1.49	1.49	0.01	0.38	0.38	—	1,493	1,493	0.05	0.03	4.41	1,508
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	3.91	2.25	21.2	34.2	0.23	0.32	11.7	12.0	0.31	3.06	3.37	—	25,084	25,084	1.60	3.08	70.0	26,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.30	1.18	0.81	12.7	0.03	0.01	3.60	3.62	0.01	0.91	0.92	—	3,336	3,336	0.11	0.08	0.28	3,365
User Defined Industrial	1.97	0.48	21.1	12.0	0.18	0.30	6.62	6.92	0.29	1.78	2.07	—	19,972	19,972	1.44	2.97	1.42	20,894

Refrigerated Warehou Rail	0.54	0.49	0.34	5.24	0.01	0.01	1.49	1.49	0.01	0.38	0.38	—	1,375	1,375	0.05	0.03	0.11	1,387
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	3.81	2.15	22.2	29.9	0.23	0.32	11.7	12.0	0.31	3.06	3.37	—	24,683	24,683	1.60	3.09	1.82	25,645
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.17	0.16	0.11	1.77	< 0.005	< 0.005	0.48	0.48	< 0.005	0.12	0.12	—	409	409	0.01	0.01	0.56	413
User Defined Industrial	0.26	0.06	2.84	1.59	0.02	0.04	0.88	0.92	0.04	0.24	0.27	—	2,417	2,417	0.17	0.36	2.87	2,532
Refrigerated Warehouse-No Rail	0.07	0.06	0.05	0.73	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	169	169	0.01	< 0.005	0.23	170
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.51	0.29	3.00	4.09	0.03	0.04	1.55	1.60	0.04	0.41	0.45	—	2,995	2,995	0.19	0.37	3.66	3,115

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,683	1,683	0.16	0.02	—	1,693
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	208	208	0.02	< 0.005	—	209
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	66.6	66.6	0.01	< 0.005	—	67.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,957	1,957	0.19	0.02	—	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,683	1,683	0.16	0.02	—	1,693
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Refrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	—	208	208	0.02	< 0.005	—	209
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	66.6	66.6	0.01	< 0.005	—	67.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,957	1,957	0.19	0.02	—	1,969
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	279	279	0.03	< 0.005	—	280
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4	< 0.005	< 0.005	—	34.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	324	324	0.03	< 0.005	—	326

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
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
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	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

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
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	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
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
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	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. 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	—	8.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.05	2.82	0.14	17.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	70.5	70.5	< 0.005	< 0.005	—	70.8
Total	3.05	12.3	0.14	17.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	70.5	70.5	< 0.005	< 0.005	—	70.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	8.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	9.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.38	0.35	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.00	8.00	< 0.005	< 0.005	—	8.02
Total	0.38	2.08	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.00	8.00	< 0.005	< 0.005	—	8.02

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	131	448	579	13.5	0.32	—	1,012
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	43.7	147	191	4.49	0.11	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	175	595	770	18.0	0.43	—	1,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	131	448	579	13.5	0.32	—	1,012
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	43.7	147	191	4.49	0.11	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	175	595	770	18.0	0.43	—	1,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.7	74.1	95.8	2.23	0.05	—	168
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	7.23	24.4	31.6	0.74	0.02	—	55.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	28.9	98.5	127	2.98	0.07	—	223

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	150	0.00	150	15.0	0.00	—	524
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	49.9	0.00	49.9	4.99	0.00	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	200	0.00	200	20.0	0.00	—	699

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	150	0.00	150	15.0	0.00	—	524
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	49.9	0.00	49.9	4.99	0.00	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	200	0.00	200	20.0	0.00	—	699
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	24.8	0.00	24.8	2.48	0.00	—	86.8
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	8.27	0.00	8.27	0.83	0.00	—	28.9

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.30	0.00	—	116

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,627	2,627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	435	435
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	435	435

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Total	1.08	0.98	2.75	2.51	< 0.005	0.14	0.00	0.14	0.14	0.00	0.14	0.00	504	504	0.02	< 0.005	0.00	505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5
Total	0.03	0.02	0.07	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.4	11.4	< 0.005	< 0.005	0.00	11.5

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)

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Unrefrigerated Warehouse-No Rail	330	27.9	11.2	88,074	5,170	437	175	1,379,753
User Defined Industrial	180	15.2	6.09	48,041	5,298	448	179	1,413,861
Refrigerated Warehouse-No Rail	136	11.5	4.60	36,297	2,131	180	72.1	568,623
User Defined Industrial	74.0	6.26	2.50	19,749	2,178	184	73.7	581,214
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	591,345	197,115	17,410

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
Unrefrigerated Warehouse-No Rail	1,774,644	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00
Refrigerated Warehouse-No Rail	218,954	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00
Parking Lot	70,212	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)
Unrefrigerated Warehouse-No Rail	68,374,150	1,262,649
User Defined Industrial	0.00	0.00
Refrigerated Warehouse-No Rail	22,791,538	0.00
User Defined Industrial	0.00	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)
Unrefrigerated Warehouse-No Rail	278	—
User Defined Industrial	0.00	—
Refrigerated Warehouse-No Rail	92.6	—
User Defined Industrial	0.00	—
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

Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	16.9	annual days of extreme heat
Extreme Precipitation	5.05	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 ¾ 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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	74.2
AQ-PM	93.3
AQ-DPM	61.0
Drinking Water	98.6
Lead Risk Housing	21.4
Pesticides	16.7
Toxic Releases	63.9
Traffic	29.6
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	53.1
Haz Waste Facilities/Generators	97.1
Impaired Water Bodies	23.9
Solid Waste	64.4
Sensitive Population	—
Asthma	49.9
Cardio-vascular	83.2

Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.7
Housing	8.50
Linguistic	52.0
Poverty	23.9
Unemployment	18.3

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	69.9088926
Employed	62.92826896
Median HI	80.39266008
Education	—
Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	4.221737457
Transportation	—
Auto Access	90.86359553
Active commuting	1.039394328
Social	—
2-parent households	33.23495445
Voting	60.79815219
Neighborhood	—
Alcohol availability	89.41357629

Park access	47.83780316
Retail density	58.01360195
Supermarket access	15.39843449
Tree canopy	23.0334916
Housing	—
Homeownership	95.07250096
Housing habitability	88.68215065
Low-inc homeowner severe housing cost burden	39.98460157
Low-inc renter severe housing cost burden	86.39804953
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	73.78416528
Arthritis	60.6
Asthma ER Admissions	42.8
High Blood Pressure	59.0
Cancer (excluding skin)	55.0
Asthma	61.7
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	58.5
Life Expectancy at Birth	24.1
Cognitively Disabled	60.3
Physically Disabled	69.8
Heart Attack ER Admissions	7.6
Mental Health Not Good	58.7
Chronic Kidney Disease	64.9
Obesity	52.9

Pedestrian Injuries	69.7
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	20.5
Current Smoker	62.2
No Leisure Time for Physical Activity	61.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	73.1
English Speaking	54.6
Foreign-born	44.6
Outdoor Workers	28.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.0
Traffic Density	32.4
Traffic Access	49.6
Other Indices	—
Hardship	49.8
Other Decision Support	—
2016 Voting	74.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0

Healthy Places Index Score for Project Location (b)	57.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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
Land Use	Total Area is 17.52 acres
Construction: Construction Phases	Construction anticipated to end in 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Architectural Coatings	Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic anlaysis
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	No natural gas will be used as part of the Project

This page intentionally left blank

APPENDIX 5.3:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (SC)
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 (SC)	2026	HHDT	Aggregate	Aggregate	Gasoline	2.628638455	162.3041519	0.038094178	38.09417834	323816.6756	162.3041519	2020691.204	6.24	HHDT
San Bernardino (SC)	2026	HHDT	Aggregate	Aggregate	Diesel	15084.77036	1831295.475	297.3157582	297315.7582		1831295.475			
San Bernardino (SC)	2026	HHDT	Aggregate	Aggregate	Electricity	191.0683418	19973.63311	0	0		19973.63311			
San Bernardino (SC)	2026	HHDT	Aggregate	Aggregate	Natural Gas	2643.959607	169259.7919	26.4628232	26462.8232		169259.7919			
San Bernardino (SC)	2026	LDA	Aggregate	Aggregate	Gasoline	456254.7841	19874166.46	641.5351772	641535.1772	653766.4651	19874166.46	21884485.35	33.47	LDA
San Bernardino (SC)	2026	LDA	Aggregate	Aggregate	Diesel	917.7888375	31994.04388	0.730185103	730.185103		31994.04388			
San Bernardino (SC)	2026	LDA	Aggregate	Aggregate	Electricity	26082.82543	1250859.603	0	0		1250859.603			
San Bernardino (SC)	2026	LDA	Aggregate	Aggregate	Plug-in Hybrid	14570.87312	727465.2451	11.50110282	11501.10282		727465.2451			
San Bernardino (SC)	2026	LDT1	Aggregate	Aggregate	Gasoline	39063.9999	1360017.769	53.36846197	53368.46197	53444.7712	1360017.769	1370565.663	25.64	LDT1
San Bernardino (SC)	2026	LDT1	Aggregate	Aggregate	Diesel	7.517030094	107.4585455	0.004383307	4.383306977		107.4585455			
San Bernardino (SC)	2026	LDT1	Aggregate	Aggregate	Electricity	110.0966514	5426.246616	0	0		5426.246616			
San Bernardino (SC)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybrid	100.2350808	5014.189058	0.071925931	71.92593104		5014.189058			
San Bernardino (SC)	2026	LDT2	Aggregate	Aggregate	Gasoline	202612.9731	8343534.623	327.3242951	327324.2951	329715.7191	8343534.623	8550437.791	25.93	LDT2
San Bernardino (SC)	2026	LDT2	Aggregate	Aggregate	Diesel	596.9953934	26308.25909	0.759292797	759.2927973		26308.25909			
San Bernardino (SC)	2026	LDT2	Aggregate	Aggregate	Electricity	2064.91584	72169.29693	0	0		72169.29693			
San Bernardino (SC)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2256.649793	108425.6117	1.63213121	1632.13121		108425.6117			
San Bernardino (SC)	2026	LHDT1	Aggregate	Aggregate	Gasoline	16791.83447	629601.5161	44.16498346	44164.98346	64979.5748	629601.5161	1079997.968	16.62	LHDT1
San Bernardino (SC)	2026	LHDT1	Aggregate	Aggregate	Diesel	11393.65177	431830.7159	20.81459135	20814.59135		431830.7159			
San Bernardino (SC)	2026	LHDT1	Aggregate	Aggregate	Electricity	282.094588	18565.73546	0	0		18565.73546			
San Bernardino (SC)	2026	LHDT2	Aggregate	Aggregate	Gasoline	2763.224246	97215.03215	7.803597069	7803.597069	18588.78398	97215.03215	289578.9062	15.58	LHDT2
San Bernardino (SC)	2026	LHDT2	Aggregate	Aggregate	Diesel	4937.57725	187863.321	10.78518691	10785.18691		187863.321			
San Bernardino (SC)	2026	LHDT2	Aggregate	Aggregate	Electricity	71.81390811	4500.553077	0	0		4500.553077			
San Bernardino (SC)	2026	MCY	Aggregate	Aggregate	Gasoline	20884.25022	122975.6545	2.907527557	2907.527557	2907.527557	122975.6545	122975.6545	42.30	MCY
San Bernardino (SC)	2026	MDV	Aggregate	Aggregate	Gasoline	147189.0217	5833278.241	282.9367666	282936.7666	287097.9101	5833278.241	6059751.016	21.11	MDV
San Bernardino (SC)	2026	MDV	Aggregate	Aggregate	Diesel	1900.727125	75215.18536	3.046386471	3046.386471		75215.18536			
San Bernardino (SC)	2026	MDV	Aggregate	Aggregate	Electricity	2262.574859	78934.40652	0	0		78934.40652			
San Bernardino (SC)	2026	MDV	Aggregate	Aggregate	Plug-in Hybrid	1469.974449	72323.18263	1.114757016	1114.757016		72323.18263			
San Bernardino (SC)	2026	MH	Aggregate	Aggregate	Gasoline	3064.468567	27038.8087	5.530646832	5530.646832	6673.58648	27038.8087	38715.77147	5.80	MH
San Bernardino (SC)	2026	MH	Aggregate	Aggregate	Diesel	1320.026239	11676.96277	1.142939648	1142.939648		11676.96277			
San Bernardino (SC)	2026	MHDT	Aggregate	Aggregate	Gasoline	1396.239062	75343.20605	14.13811827	14138.11827	88998.08289	75343.20605	764236.6027	8.59	MHDT
San Bernardino (SC)	2026	MHDT	Aggregate	Aggregate	Diesel	15710.20603	665955.6798	73.67630673	73676.30673		665955.6798			
San Bernardino (SC)	2026	MHDT	Aggregate	Aggregate	Electricity	245.8765864	12699.29672	0	0		12699.29672			
San Bernardino (SC)	2026	MHDT	Aggregate	Aggregate	Natural Gas	220.2089686	10238.42022	1.183657888	1183.657888		10238.42022			
San Bernardino (SC)	2026	OBUS	Aggregate	Aggregate	Gasoline	348.5150855	14345.28666	2.754710661	2754.710661	5020.348152	14345.28666	32033.51538	6.38	OBUS
San Bernardino (SC)	2026	OBUS	Aggregate	Aggregate	Diesel	220.037016	15248.80528	2.024298125	2024.298125		15248.80528			
San Bernardino (SC)	2026	OBUS	Aggregate	Aggregate	Electricity	3.340971814	259.0449895	0	0		259.0449895			
San Bernardino (SC)	2026	OBUS	Aggregate	Aggregate	Natural Gas	36.78806859	2180.378447	0.241339366	241.3393658		2180.378447			
San Bernardino (SC)	2026	SBUS	Aggregate	Aggregate	Gasoline	302.8964194	14222.26132	1.577820897	1577.820897	4964.605895	14222.26132	32090.47199	6.46	SBUS
San Bernardino (SC)	2026	SBUS	Aggregate	Aggregate	Diesel	353.6259778	7228.312611	0.976501833	976.5018327		7228.312611			
San Bernardino (SC)	2026	SBUS	Aggregate	Aggregate	Electricity	8.074559241	228.2385136	0	0		228.2385136			
San Bernardino (SC)	2026	SBUS	Aggregate	Aggregate	Natural Gas	423.8773853	10411.65954	2.410283165	2410.283165		10411.65954			
San Bernardino (SC)	2026	UBUS	Aggregate	Aggregate	Gasoline	54.94101785	5275.062551	0.407858087	407.8580873	7993.083023	5275.062551	40285.42929	5.04	UBUS
San Bernardino (SC)	2026	UBUS	Aggregate	Aggregate	Diesel	4.529432466	447.4667714	0.043317653	43.31765334		447.4667714			
San Bernardino (SC)	2026	UBUS	Aggregate	Aggregate	Electricity	11.78176765	1911.719241	0	0		1911.719241			
San Bernardino (SC)	2026	UBUS	Aggregate	Aggregate	Natural Gas	239.9647068	32651.18073	7.541907283	7541.907283		32651.18073			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (SC)
Calendar Year: 2027
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 (SC)	2027	HHDT	Aggregate	Aggregate	Gasoline	2.031197481	158.444704	0.03545197	35.45197047	324538.1908	158.444704	2066703.214	6.37	HHDT
San Bernardino (SC)	2027	HHDT	Aggregate	Aggregate	Diesel	15410.14317	1861290.669	297.8003661	297800.3661		1861290.669			
San Bernardino (SC)	2027	HHDT	Aggregate	Aggregate	Electricity	309.5303952	32362.74223	0	0		32362.74223			
San Bernardino (SC)	2027	HHDT	Aggregate	Aggregate	Natural Gas	2715.575882	172891.3587	26.70237267	26702.37267		172891.3587			
San Bernardino (SC)	2027	LDA	Aggregate	Aggregate	Gasoline	455364.3713	19787637.94	626.1101219	626110.1219	638604.9325	19787637.94	21952221.48	34.38	LDA
San Bernardino (SC)	2027	LDA	Aggregate	Aggregate	Diesel	838.6675897	29298.26032	0.659294609	659.2946086		29298.26032			
San Bernardino (SC)	2027	LDA	Aggregate	Aggregate	Electricity	29132.45727	1375391.516	0	0		1375391.516			
San Bernardino (SC)	2027	LDA	Aggregate	Aggregate	Plug-in Hybrid	15443.22828	759893.7676	11.83551602	11835.51602		759893.7676			
San Bernardino (SC)	2027	LDT1	Aggregate	Aggregate	Gasoline	38336.73013	1338397.254	51.51343959	51513.43959	51606.62039	1338397.254	1351923.889	26.20	LDT1
San Bernardino (SC)	2027	LDT1	Aggregate	Aggregate	Diesel	4.439852634	65.17772521	0.002574711	2.57471119		65.17772521			
San Bernardino (SC)	2027	LDT1	Aggregate	Aggregate	Electricity	144.0545689	7086.678198	0	0		7086.678198			
San Bernardino (SC)	2027	LDT1	Aggregate	Aggregate	Plug-in Hybrid	128.8782043	6374.778863	0.090606087	90.60608738		6374.778863			
San Bernardino (SC)	2027	LDT2	Aggregate	Aggregate	Gasoline	207676.4312	8538774.779	327.3681394	327368.1394	329973.7622	8538774.779	8775845.407	26.60	LDT2
San Bernardino (SC)	2027	LDT2	Aggregate	Aggregate	Diesel	630.9551959	27664.28405	0.782780323	782.7803228		27664.28405			
San Bernardino (SC)	2027	LDT2	Aggregate	Aggregate	Electricity	2524.548375	86861.55106	0	0		86861.55106			
San Bernardino (SC)	2027	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2587.065461	122544.7931	1.822842412	1822.842412		122544.7931			
San Bernardino (SC)	2027	LHDT1	Aggregate	Aggregate	Gasoline	16631.76323	624309.3634	42.99085614	42990.85614	63571.75886	624309.3634	1082917.934	17.03	LHDT1
San Bernardino (SC)	2027	LHDT1	Aggregate	Aggregate	Diesel	11353.59669	427724.523	20.58090272	20580.90272		427724.523			
San Bernardino (SC)	2027	LHDT1	Aggregate	Aggregate	Electricity	483.3007095	30884.04755	0	0		30884.04755			
San Bernardino (SC)	2027	LHDT2	Aggregate	Aggregate	Gasoline	2701.097559	94507.35792	7.480744076	7480.744076	18200.52082	94507.35792	289429.504	15.90	LHDT2
San Bernardino (SC)	2027	LHDT2	Aggregate	Aggregate	Diesel	4973.210606	187433.7598	10.71977674	10719.77674		187433.7598			
San Bernardino (SC)	2027	LHDT2	Aggregate	Aggregate	Electricity	122.9369508	7488.386288	0	0		7488.386288			
San Bernardino (SC)	2027	MCY	Aggregate	Aggregate	Gasoline	20938.59567	122694.478	2.890537534	2890.537534	2890.537534	122694.478	122694.478	42.45	MCY
San Bernardino (SC)	2027	MDV	Aggregate	Aggregate	Gasoline	147488.8393	5847136.794	277.1736638	277173.6638	281362.1261	5847136.794	6096922.964	21.67	MDV
San Bernardino (SC)	2027	MDV	Aggregate	Aggregate	Diesel	1888.455182	74178.21175	2.946435768	2946.435768		74178.21175			
San Bernardino (SC)	2027	MDV	Aggregate	Aggregate	Electricity	2733.489517	93772.05753	0	0		93772.05753			
San Bernardino (SC)	2027	MDV	Aggregate	Aggregate	Plug-in Hybrid	1684.990864	81835.90048	1.242026531	1242.026531		81835.90048			
San Bernardino (SC)	2027	MH	Aggregate	Aggregate	Gasoline	2916.368599	25737.28381	5.27019968	5270.19968	6397.211655	25737.28381	37228.95733	5.82	MH
San Bernardino (SC)	2027	MH	Aggregate	Aggregate	Diesel	1309.206187	11491.67351	1.127011975	1127.011975		11491.67351			
San Bernardino (SC)	2027	MHDT	Aggregate	Aggregate	Gasoline	1363.931373	73700.39666	13.69794739	13697.94739	88901.23052	73700.39666	776532.1125	8.73	MHDT
San Bernardino (SC)	2027	MHDT	Aggregate	Aggregate	Diesel	16024.85269	671004.9398	73.98162813	73981.62813		671004.9398			
San Bernardino (SC)	2027	MHDT	Aggregate	Aggregate	Electricity	415.444894	21284.00609	0	0		21284.00609			
San Bernardino (SC)	2027	MHDT	Aggregate	Aggregate	Natural Gas	231.558042	10542.76998	1.221654995	1221.654995		10542.76998			
San Bernardino (SC)	2027	OBUS	Aggregate	Aggregate	Gasoline	338.4979609	13679.12348	2.606454389	2606.454389	4867.066738	13679.12348	31634.98876	6.50	OBUS
San Bernardino (SC)	2027	OBUS	Aggregate	Aggregate	Diesel	224.28968	15302.2929	2.013017951	2013.017951		15302.2929			
San Bernardino (SC)	2027	OBUS	Aggregate	Aggregate	Electricity	5.327608073	407.9589952	0	0		407.9589952			
San Bernardino (SC)	2027	OBUS	Aggregate	Aggregate	Natural Gas	38.43104481	2245.613392	0.247594398	247.5943984		2245.613392			
San Bernardino (SC)	2027	SBUS	Aggregate	Aggregate	Gasoline	305.3091837	14312.56626	1.584072348	1584.072348	4963.461893	14312.56626	32226.7021	6.49	SBUS
San Bernardino (SC)	2027	SBUS	Aggregate	Aggregate	Diesel	342.2196973	6962.145992	0.937618085	937.6180855		6962.145992			
San Bernardino (SC)	2027	SBUS	Aggregate	Aggregate	Electricity	13.01170465	369.133274	0	0		369.133274			
San Bernardino (SC)	2027	SBUS	Aggregate	Aggregate	Natural Gas	435.6655597	10582.85658	2.44177146	2441.77146		10582.85658			
San Bernardino (SC)	2027	UBUS	Aggregate	Aggregate	Gasoline	55.04919487	5285.495548	0.409776943	409.7769433	7271.552247	5285.495548	40366.41553	5.55	UBUS
San Bernardino (SC)	2027	UBUS	Aggregate	Aggregate	Diesel	4.529432466	447.4667714	0.043453785	43.4537853		447.4667714			
San Bernardino (SC)	2027	UBUS	Aggregate	Aggregate	Electricity	29.13079723	4558.880161	0	0		4558.880161			
San Bernardino (SC)	2027	UBUS	Aggregate	Aggregate	Natural Gas	223.133143	30074.57305	6.818321518	6818.321518		30074.57305			

This page intentionally left blank

APPENDIX 5.4:

CALEEMOD GENERAL PLAN EMISSIONS MODEL OUTPUTS

5088 Edison (General Plan Land Use) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5088 Edison (General Plan Land Use)
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	33.99915102972773, -117.6945989806811
County	San Bernardino-South Coast
City	Chino
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5218
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.28

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
Unrefrigerated Warehouse-No Rail	237	1000sqft	5.43	236,662	0.00	—	—	Passenger Cars for Warehouse

User Defined Industrial	237	User Defined Unit	0.00	0.00	0.00	—	—	Trucks for Warehouse
Other Asphalt Surfaces	6.65	Acre	6.65	0.00	0.00	—	—	—
General Heavy Industry	237	1000sqft	5.43	236,662	0.00	—	—	Passenger Cars for General Light Industrial
User Defined Industrial	237	User Defined Unit	0.00	0.00	0.00	—	—	Trucks for General Light Industrial

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	25.0	22.5	30.0	105	0.34	0.94	20.7	21.6	0.92	5.31	6.23	488	42,201	42,689	51.8	3.51	151	45,182
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.1	18.9	30.9	71.7	0.33	0.91	20.7	21.6	0.89	5.31	6.21	488	40,916	41,404	51.9	3.53	63.9	43,817
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.4	18.6	21.8	72.2	0.26	0.61	16.8	17.4	0.59	4.31	4.91	488	33,957	34,444	51.5	2.87	92.7	36,680
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.73	3.39	3.98	13.2	0.05	0.11	3.07	3.18	0.11	0.79	0.90	80.8	5,622	5,703	8.52	0.48	15.4	6,073

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	7.40	5.59	20.4	76.0	0.31	0.32	20.7	21.0	0.30	5.31	5.62	—	32,530	32,530	1.72	2.93	89.9	33,538
Area	15.0	14.8	0.17	20.6	< 0.005	0.04	—	0.04	0.03	—	0.03	—	84.7	84.7	< 0.005	< 0.005	—	85.0
Energy	0.43	0.22	3.93	3.31	0.02	0.30	—	0.30	0.30	—	0.30	—	7,872	7,872	0.72	0.05	—	7,904
Water	—	—	—	—	—	—	—	—	—	—	—	210	707	916	21.6	0.52	—	1,611
Waste	—	—	—	—	—	—	—	—	—	—	—	278	0.00	278	27.8	0.00	—	973
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Stationary	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Total	25.0	22.5	30.0	105	0.34	0.94	20.7	21.6	0.92	5.31	6.23	488	42,201	42,689	51.8	3.51	151	45,182
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.14	5.33	21.5	63.3	0.29	0.32	20.7	21.0	0.30	5.31	5.62	—	31,330	31,330	1.74	2.96	2.33	32,258
Area	11.4	11.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.43	0.22	3.93	3.31	0.02	0.30	—	0.30	0.30	—	0.30	—	7,872	7,872	0.72	0.05	—	7,904
Water	—	—	—	—	—	—	—	—	—	—	—	210	707	916	21.6	0.52	—	1,611
Waste	—	—	—	—	—	—	—	—	—	—	—	278	0.00	278	27.8	0.00	—	973
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Stationary	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Total	21.1	18.9	30.9	71.7	0.33	0.91	20.7	21.6	0.89	5.31	6.21	488	40,916	41,404	51.9	3.53	63.9	43,817
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.82	4.40	17.0	54.1	0.24	0.25	16.8	17.1	0.24	4.31	4.55	—	25,182	25,182	1.37	2.31	31.1	25,935

Area	13.9	13.7	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.0	58.0	< 0.005	< 0.005	—	58.2
Energy	0.43	0.22	3.93	3.31	0.02	0.30	—	0.30	0.30	—	0.30	—	7,872	7,872	0.72	0.05	—	7,904
Water	—	—	—	—	—	—	—	—	—	—	—	210	707	916	21.6	0.52	—	1,611
Waste	—	—	—	—	—	—	—	—	—	—	—	278	0.00	278	27.8	0.00	—	973
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Stationary	0.30	0.27	0.75	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	138	138	0.01	< 0.005	0.00	138
Total	20.4	18.6	21.8	72.2	0.26	0.61	16.8	17.4	0.59	4.31	4.91	488	33,957	34,444	51.5	2.87	92.7	36,680
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.06	0.80	3.10	9.88	0.04	0.05	3.07	3.11	0.04	0.79	0.83	—	4,169	4,169	0.23	0.38	5.15	4,294
Area	2.53	2.50	0.02	2.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Energy	0.08	0.04	0.72	0.60	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,303	1,303	0.12	0.01	—	1,309
Water	—	—	—	—	—	—	—	—	—	—	—	34.7	117	152	3.57	0.09	—	267
Waste	—	—	—	—	—	—	—	—	—	—	—	46.0	0.00	46.0	4.60	0.00	—	161
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.2	10.2
Stationary	0.05	0.05	0.14	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	22.8	22.8	< 0.005	< 0.005	0.00	22.9
Total	3.73	3.39	3.98	13.2	0.05	0.11	3.07	3.18	0.11	0.79	0.90	80.8	5,622	5,703	8.52	0.48	15.4	6,073

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	1.09	0.99	0.58	12.6	0.03	0.01	2.88	2.90	0.01	0.73	0.74	—	2,898	2,898	0.09	0.06	8.57	2,928
User Defined Industrial	1.68	0.38	17.3	9.91	0.16	0.26	5.55	5.81	0.25	1.49	1.74	—	17,316	17,316	1.26	2.60	44.9	18,168
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
General Heavy Industry	4.63	4.22	2.48	53.5	0.12	0.05	12.3	12.3	0.05	3.09	3.14	—	12,316	12,316	0.37	0.27	36.4	12,442
Total	7.40	5.59	20.4	76.0	0.31	0.32	20.7	21.0	0.30	5.31	5.62	—	32,530	32,530	1.72	2.93	89.9	33,538
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.04	0.95	0.65	10.2	0.03	0.01	2.88	2.90	0.01	0.73	0.74	—	2,669	2,669	0.09	0.07	0.22	2,692
User Defined Industrial	1.67	0.37	18.1	9.93	0.16	0.26	5.55	5.81	0.25	1.49	1.74	—	17,320	17,320	1.26	2.61	1.16	18,129
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
General Heavy Industry	4.43	4.02	2.76	43.2	0.11	0.05	12.3	12.3	0.05	3.09	3.14	—	11,341	11,341	0.39	0.29	0.94	11,437
Total	7.14	5.33	21.5	63.3	0.29	0.32	20.7	21.0	0.30	5.31	5.62	—	31,330	31,330	1.74	2.96	2.33	32,258
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.14	0.13	0.09	1.42	< 0.005	< 0.005	0.38	0.38	< 0.005	0.10	0.10	—	327	327	0.01	0.01	0.45	331

User Defined Industrial	0.23	0.05	2.56	1.39	0.02	0.04	0.78	0.81	0.03	0.21	0.24	—	2,207	2,207	0.16	0.33	2.47	2,312
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
General Heavy Industry	0.69	0.63	0.45	7.07	0.02	0.01	1.91	1.92	0.01	0.48	0.49	—	1,635	1,635	0.06	0.04	2.24	1,651
Total	1.06	0.80	3.10	9.88	0.04	0.05	3.07	3.11	0.04	0.79	0.83	—	4,169	4,169	0.23	0.38	5.15	4,294

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,037	1,037	0.10	0.01	—	1,043
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,141	2,141	0.20	0.02	—	2,153
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,178	3,178	0.30	0.04	—	3,196

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,037	1,037	0.10	0.01	—	1,043
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,141	2,141	0.20	0.02	—	2,153
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,178	3,178	0.30	0.04	—	3,196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	172	172	0.02	< 0.005	—	173
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	354	354	0.03	< 0.005	—	357
Total	—	—	—	—	—	—	—	—	—	—	—	—	526	526	0.05	0.01	—	529

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,442	1,442	0.13	< 0.005	—	1,446
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	0.30	0.15	2.73	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,253	3,253	0.29	0.01	—	3,262
Total	0.43	0.22	3.93	3.31	0.02	0.30	—	0.30	0.30	—	0.30	—	4,695	4,695	0.42	0.01	—	4,708
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,442	1,442	0.13	< 0.005	—	1,446
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	0.30	0.15	2.73	2.29	0.02	0.21	—	0.21	0.21	—	0.21	—	3,253	3,253	0.29	0.01	—	3,262

Total	0.43	0.22	3.93	3.31	0.02	0.30	—	0.30	0.30	—	0.30	—	4,695	4,695	0.42	0.01	—	4,708
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	239	239	0.02	< 0.005	—	239
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	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	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Heavy Industry	0.05	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	—	539	539	0.05	< 0.005	—	540
Total	0.08	0.04	0.72	0.60	< 0.005	0.05	—	0.05	0.05	—	0.05	—	777	777	0.07	< 0.005	—	779

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	10.2	10.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.22	1.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	3.66	3.38	0.17	20.6	< 0.005	0.04	—	0.04	0.03	—	0.03	—	84.7	84.7	< 0.005	< 0.005	—	85.0
Total	15.0	14.8	0.17	20.6	< 0.005	0.04	—	0.04	0.03	—	0.03	—	84.7	84.7	< 0.005	< 0.005	—	85.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.2	10.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.22	1.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11.4	11.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.85	1.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.22	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.46	0.42	0.02	2.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Total	2.53	2.50	0.02	2.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	105	353	458	10.8	0.26	—	805
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	105	353	458	10.8	0.26	—	805
Total	—	—	—	—	—	—	—	—	—	—	—	210	707	916	21.6	0.52	—	1,611
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	105	353	458	10.8	0.26	—	805
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	105	353	458	10.8	0.26	—	805
Total	—	—	—	—	—	—	—	—	—	—	—	210	707	916	21.6	0.52	—	1,611

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.4	58.5	75.9	1.79	0.04	—	133
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	17.4	58.5	75.9	1.79	0.04	—	133
Total	—	—	—	—	—	—	—	—	—	—	—	34.7	117	152	3.57	0.09	—	267

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	419
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	553
Total	—	—	—	—	—	—	—	—	—	—	—	278	0.00	278	27.8	0.00	—	973
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	419
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	553
Total	—	—	—	—	—	—	—	—	—	—	—	278	0.00	278	27.8	0.00	—	973
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.8	0.00	19.8	1.98	0.00	—	69.4
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	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

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	26.2	0.00	26.2	2.62	0.00	—	91.6
Total	—	—	—	—	—	—	—	—	—	—	—	46.0	0.00	46.0	4.60	0.00	—	161

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.6	61.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.2	10.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.2	10.2

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Total	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Fire Pump	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Total	2.16	1.97	5.50	5.02	0.01	0.29	0.00	0.29	0.29	0.00	0.29	0.00	1,007	1,007	0.04	0.01	0.00	1,011
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.05	0.05	0.14	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	22.8	22.8	< 0.005	< 0.005	0.00	22.9
Total	0.05	0.05	0.14	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	22.8	22.8	< 0.005	< 0.005	0.00	22.9

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)

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Unrefrigerated Warehouse-No Rail	264	22.3	8.95	70,459	4,136	350	140	1,103,803
User Defined Industrial	144	12.2	4.88	38,435	4,385	371	148	1,170,342
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Heavy Industry	1,094	155	1,122	351,784	17,138	2,425	17,574	5,511,012
User Defined Industrial	60.0	8.50	61.5	19,293	1,839	260	1,887	591,515

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	709,986	236,662	17,380

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
Unrefrigerated Warehouse-No Rail	1,093,072	346	0.0330	0.0040	4,499,105
User Defined Industrial	0.00	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
General Heavy Industry	2,257,217	346	0.0330	0.0040	10,149,513
User Defined Industrial	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)
Unrefrigerated Warehouse-No Rail	54,728,088	0.00
User Defined Industrial	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
General Heavy Industry	54,728,088	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	222	—
User Defined Industrial	0.00	—
Other Asphalt Surfaces	0.00	—
General Heavy Industry	293	—
User Defined Industrial	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
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	2.00	1.00	50.0	300	0.73

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	16.9	annual days of extreme heat
Extreme Precipitation	5.05	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 ¾ 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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	74.2
AQ-PM	93.3
AQ-DPM	61.0
Drinking Water	98.6
Lead Risk Housing	21.4
Pesticides	16.7
Toxic Releases	63.9
Traffic	29.6
Effect Indicators	—

CleanUp Sites	71.6
Groundwater	53.1
Haz Waste Facilities/Generators	97.1
Impaired Water Bodies	23.9
Solid Waste	64.4
Sensitive Population	—
Asthma	49.9
Cardio-vascular	83.2
Low Birth Weights	13.5
Socioeconomic Factor Indicators	—
Education	58.7
Housing	8.50
Linguistic	52.0
Poverty	23.9
Unemployment	18.3

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	69.9088926
Employed	62.92826896
Median HI	80.39266008
Education	—
Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	4.221737457
Transportation	—

Auto Access	90.86359553
Active commuting	1.039394328
Social	—
2-parent households	33.23495445
Voting	60.79815219
Neighborhood	—
Alcohol availability	89.41357629
Park access	47.83780316
Retail density	58.01360195
Supermarket access	15.39843449
Tree canopy	23.0334916
Housing	—
Homeownership	95.07250096
Housing habitability	88.68215065
Low-inc homeowner severe housing cost burden	39.98460157
Low-inc renter severe housing cost burden	86.39804953
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	73.78416528
Arthritis	60.6
Asthma ER Admissions	42.8
High Blood Pressure	59.0
Cancer (excluding skin)	55.0
Asthma	61.7
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	58.5
Life Expectancy at Birth	24.1

Cognitively Disabled	60.3
Physically Disabled	69.8
Heart Attack ER Admissions	7.6
Mental Health Not Good	58.7
Chronic Kidney Disease	64.9
Obesity	52.9
Pedestrian Injuries	69.7
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	20.5
Current Smoker	62.2
No Leisure Time for Physical Activity	61.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	73.1
English Speaking	54.6
Foreign-born	44.6
Outdoor Workers	28.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.0
Traffic Density	32.4
Traffic Access	49.6
Other Indices	—
Hardship	49.8
Other Decision Support	—

2016 Voting	74.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0
Healthy Places Index Score for Project Location (b)	57.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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
Land Use	Total Area is 17.52 acres
Construction: Construction Phases	Construction anticipated to end in 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Architectural Coatings	Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic anlaysis

Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	No natural gas will be used as part of the Project

This page intentionally left blank