

APPENDIX 4.6-1

ENERGY ANALYSIS



Anaheim Hills Festival Specific Plan Amendment

ENERGY ANALYSIS

CITY OF ANAHEIM

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LIST OF ABBREVIATED TERMS

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

mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Anaheim Hills Festival Specific Plan Amendment
SCAB	South Coast Air Basin
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21 st Century
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

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

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

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

ES.2 PROJECT REQUIREMENTS

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

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

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

ES.3 PROJECT DESIGN FEATURES

PDF-1

Prior to issuance of certificate of occupancy for each building, developers/contractors shall require the installation of ENERGY STAR-certified appliances that exceed the energy efficiency of conventional appliances. By committing to more efficient appliances, the building's energy use is reduced, thereby reducing energy consumption.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Anaheim Hills Festival Specific Plan Amendment Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Anaheim (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

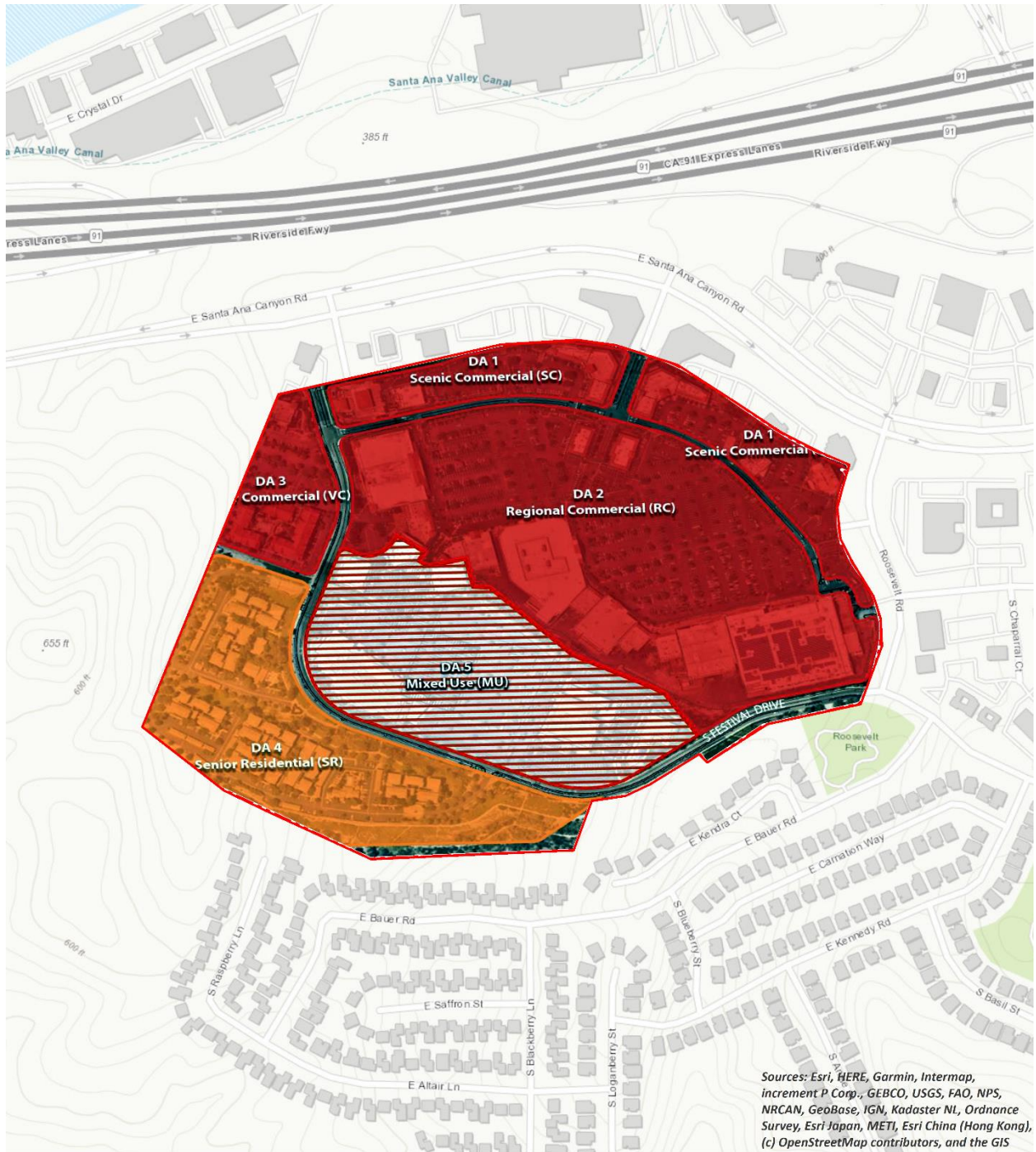
The proposed Project site is located south of Santa Ana Canyon Road and west of Roosevelt Road in the City of Anaheim, as shown in Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The existing Specific Plan (SP) is divided into four Development Areas (DA) by land use. DA 1 is the Scenic Commercial area fronting Santa Ana Canyon Road between Festival Drive and Roosevelt Road, DA 2 is the Regional Commercial use that contains the department stores, grocer, other food/retail uses, and the vacant cinema, DA 3 is the Visitor Commercial area located west of Festival Drive which includes the existing hotel, and DA 4 is the Senior Residential area south of Festival Drive. The proposed Specific Plan Amendment (SPA) proposes the implementation of a new 16.2-acre mixed-use development area on the upper level of the commercial center as a new DA 5 (which is a portion of the old DA 2). Exhibit 1-A illustrates the proposed DA locations for the SPA.

Specifically, the Project proposes to demolish the existing 62,676 square foot vacant cinema and develop in its place 447 multifamily residential dwelling units while retaining the remaining existing commercial uses within the new DA 5. Approximately 13,310 square feet of existing retail would be retained in DA 2 as a result of the new DA 5 (resulting in a net reduction of 49,366 square feet of retail space). The retail within DA 5 will include the following existing uses: 6,475 square feet of restaurant use, 9,200 square feet of office use, 38,160 square foot fitness/gym, 13,276 square feet of tutor/retail space, and 11,033 square foot medical office building. A preliminary site plan for the proposed multifamily residential development is shown on Exhibit 1-B. The Project will be developed within a single phase with an anticipated opening year of 2029.

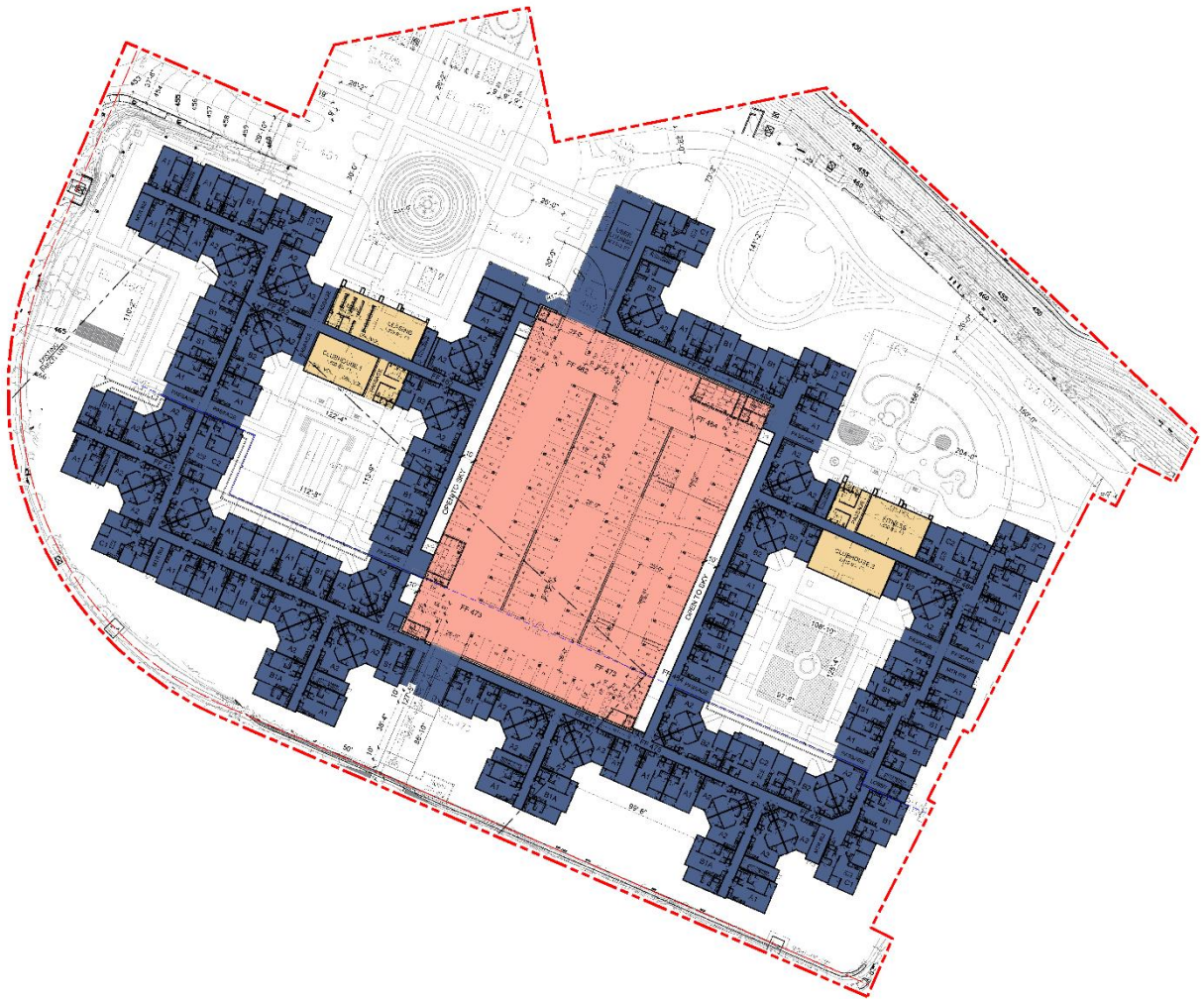
EXHIBIT 1-A: SPA PROPOSED DEVELOPMENT AREAS



LEGEND:

SPA Development Area

EXHIBIT 1-B: SITE PLAN



LEGEND:

 Site Boundary

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2 EXISTING CONDITIONS

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

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2021 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 of 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, the 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 of electricity generation at 47.46% of the total in-state electric generation system power as shown in Table 2-1.

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

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

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

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

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

Source: California Energy Commission's 2022 Total System Electric Generation

2.2 ELECTRICITY

The Project's 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 Coast 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 directing 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 provided to the Project site by Anaheim Public Utilities (APU). APU provides electric power to more than 358,000 persons, within a service area encompassing approximately 50,000 square miles (13). Based on the APU 2022 Power Content Label Mix, APU Utilities derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, geothermal power plants, solar power generation, and wind farms.

As indicated in Table 2-2, the 2022 APU Power Mix has renewable energy at 30.6% of the overall energy resources. Geothermal resources are at 2.3%, wind power is at 6.7%, large hydroelectric sources are at 0.1%, solar energy is at 4.5%, and coal is at 32.5% (14).

TABLE 2-2: APU 2022 POWER CONTENT MIX

Energy Resources	2022 APU Power Mix
Eligible Renewable	30.6%
Biomass & Waste	17.0%
Geothermal	2.3%
Eligible Hydroelectric	0.1%
Solar	4.5%
Wind	6.7%
Coal	32.5%
Large Hydroelectric	1.6%
Natural Gas	33.3%
Nuclear	0.0%
Other	0.0%
Unspecified Sources of power*	2.0%
Total	100%

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

2.3 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (6), and those vehicles consume an estimated 17.2 billion gallons of fuel each year¹. Gasoline (and other vehicle fuels) are 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 (15).

¹ Fuel consumptions estimated utilizing information from EMFAC2021.

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3 REGULATORY BACKGROUND

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

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

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

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

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

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

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

The 2023 IEPR was adopted in 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 (16).

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 into effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated regularly, 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 (17). 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 (18):

RESIDENTIAL MANDATORY MEASURES

- Electric vehicle (EV) charging stations. New construction shall comply with Section 4.106.4.1, 4.106.4.2, 4.106.4.3, to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625. (4.106.4).
 - New one- and two-family dwellings and town-houses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to

- install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.
- New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1.
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with Sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.1.4.
- Outdoor potable water use in landscape areas. Residential 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.
- Operation and maintenance manual. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:
 - Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
 - Operations and maintenance instructions for the following:
 - Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, EV chargers, water-heating systems and other major appliances and equipment.
 - Roof and yard drainage, including gutter and downspouts.
 - Space conditioning systems, including condensers and air filters.
 - Landscape irrigation systems.
 - Water reuse systems.
 - Information from local utility, water and waste recovery providers on methods to further reduce future resource consumption, including recycling programs and locations.
 - Public transportation and/or carpool options available in the area.
 - Educational material on the positive impacts of an interior relative humidity between 30-60% and what methods occupants may use to maintain the relative humidity level in that range.
 - Information about water-conserving landscape and irrigation design and controllers which conserve water.
 - Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
 - Information about state solar energy and incentive programs available.
 - A copy of all special inspection verifications required by the enforcing agency of this code.
 - Information from CALFIRE on maintenance of defensible space around residential structures.
- Any installed gas fireplace shall be direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission

limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

- Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the CARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat-high Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 CARB, Suggested Control Measure, and the corresponding Flat, Nonflat, Nonflat-high Gloss VOC limit in Table 4.504.3 shall apply.

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 (19).

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 LOW CARBON TRANSPORTATION INCENTIVES AND THE AIR QUALITY IMPROVEMENT PROGRAM (AB 118)

Low Carbon Transportation Incentives and the Air Quality Improvement Program provide mobile source incentives to reduce greenhouse gas, criteria pollutant, and toxic air contaminant

emissions through the deployment of advanced technology and clean transportation in the light-duty and heavy-duty sectors. Low Carbon Transportation Incentives are supported by Cap-and-Trade auction proceeds. The Air Quality Improvement Program (AQIP), established by the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 (Assembly Bill 118), is a voluntary incentive program administered by CARB to fund clean vehicle and equipment projects, research on biofuels production, and the air quality impacts of alternative fuels, and workforce training (20).

3.2.8 ADVANCED CLEAN FLEETS REGULATION

The Advanced Clean Fleets (ACF) requires fleets that are well suited for electrification to reduce emissions through requirements to both phase-in the use of Zero-Emission Vehicles (ZEVs) for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year.

3.2.9 STATE AND ALTERNATIVE FUEL PROVIDER FLEET PROGRAM

The State and Alternative Fuel Provider Fleet Program requires covered fleets to acquire alternative fuel vehicles (AFVs) as a percentage of their annual light-duty vehicle acquisitions or to employ other petroleum-reduction methods in lieu of acquiring AFVs. The U.S. Department of Energy (DOE) established these requirements through 10 CFR Part 490.

3.2.10 LOCAL

CITY OF ANAHEIM GENERAL PLAN GREEN ELEMENT

The Green Element of the City's General Plan contains policies relating to energy, including policies encouraging: the use of electric and alternative fueled vehicles; energy conservation; usage of passive and active solar design in existing and new development; energy-efficient retrofitting of existing buildings; the provision of free energy audits to the public; and the use of solar and wind for daylighting and natural ventilation. The Project will be consistent with the follow Green Element policies (21):

Energy Conservation

Goal 15.1: Continue to lead the County in energy conservation programs, practices and community outreach.

Policies

1. Continue to maintain and update energy conservation programs and information provided on the City's website.

Goal 15.2: Continue to encourage site design practices that reduce and conserve energy.

1. Encourage increased use of passive and active solar design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings).

ANAHEIM MUNICIPAL CODE

The 2022 California Energy Code (CCR Title 24 Part 6), which includes the Energy Efficiency Standards for Residential and Nonresidential Buildings, is adopted, with specified amendments, as Anaheim Municipal Code (AMC) Section 15.03.080. The 2022 California Green Building Standards Code (CCR Title 24 Part 11) is adopted, with specified amendments, as AMC Section 15.03.100 (22).

ANAHEIM PUBLIC UTILITIES INTEGRATED RESOURCE PLAN

On October 7, 2015, Governor Brown signed SB 350 (Clean Energy and Pollution Reduction Act of 2015), which mandated an increase in the procurement of renewables from 33% to 50% by 2030 and requires certain publicly-owned utilities, including Anaheim, to adopt and file an Integrated Resources Plan (IRP) no less than once every five years. An IRP is a comprehensive planning strategy and long-term road map for meeting state Greenhouse Gas (GHG) reduction goals, while balancing the need for reliable and affordable electric service to customers. Subsequent legislation, SB 100 (100 Percent Clean Energy Act of 2018), accelerated the adoption of renewables to 60% by 2030, and established a longer-term goal of 100% carbon-free resources by 2045. The 2023 IRP reflects APU's ongoing efforts to reduce its GHG emissions by more than 80% from 1990 levels by 2030. Near-term procurement of power supplies includes solar, wind, and battery storage. Beyond the 2030 horizon, APU will evaluate new technologies that further decarbonize its portfolio and gradually reduce reliance on other fossil-fuel resources.

Included as the basis for modeling portfolio alternatives was a forecast of customer energy needs, which was based on customer growth from development activities as well as electric vehicles and building electrification. However, increases in energy use are expected to be offset by customer-owned rooftop solar installations and customer energy efficiency reductions. Based on the results of this modeling, APU estimates an average cumulative increase in customer energy demand of approximately 1.41% between 2024 and 2035, which is effectively a low-growth energy demand forecast (23).

ANAHEIM PUBLIC UTILITIES GREENHOUSE GAS REDUCTION PLAN

The APU's Greenhouse Gas Reduction Plan (GHGRP), approved in 2015, and updated in 2020, identifies renewable energy and energy conservation targets for APU for the years 2020, 2030 and 2045. The GHGRP identifies renewables portfolio targets for increasing the APU power supply generated from renewable sources up to 33 percent by year 2020, 60 percent by year 2030, and 100 percent by 2045. In 2020, 34,000 kilowatt (kW) of photovoltaic systems were installed in the City, 50,000 kW of photovoltaic systems are expected to be installed by 2030, and 75,000 kW of photovoltaic systems are expected to be installed by 2045 (24).

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (25) states that the means of achieving the goal of energy conservation includes the following:

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

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

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

4.2 METHODOLOGY

Information from the CalEEMod Version 2022.1.1.22 outputs for the *Anaheim Hills Festival Specific Plan Amendment Air Quality Impact Analysis* (AQIA) (26) was utilized in this analysis, detailing Project-related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (27). 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 4.1 through 4.3.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMISSIONS FACTOR model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (28). 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

analysis, the 2026 through 2029 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Output from the EMFAC2021 model run is provided in Appendix 4.2.

4.3 CONSTRUCTION ENERGY DEMANDS

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

4.3.1 CONSTRUCTION POWER COST

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

CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to commence in September 2026 and would last through December 2029 (26). The construction schedule utilized in the analysis, shown in Table 4-1, represents a “conservative” analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (29).

TABLE 4-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Demolition	9/1/2026	10/30/2026	44
Site Preparation	11/2/2026	12/31/2026	44
Grading	1/1/2027	4/1/2027	65
Building Construction	4/2/2027	12/17/2029	707
Paving	10/1/2029	12/28/2029	65
Architectural Coating	8/1/2029	12/28/2029	108

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 (30). As shown in Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$86,910.57.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Apartments Mid Rise	\$2.66	424.144	39	\$44,000.70
Parking Lot	\$2.66	320.602	39	\$33,259.25
Landscape	\$2.66	93.027	39	\$9,650.62
CONSTRUCTION POWER COST				\$86,910.57

4.3.2 CONSTRUCTION ELECTRICITY USAGE

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

PROJECT CONSTRUCTION ELECTRICITY USAGE

The APU's general service rate schedule was used to determine the Project's electrical usage. As of February 15, 2022, the APU's general service rate is \$0.16 per kilowatt hours (kWh) of electricity for residential services and \$0.14 per kWh for commercial services (31) (32). As shown in Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 580,829 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Apartments Mid Rise	\$0.16	277,257
Parking Lot	\$0.14	235,297
Landscape	\$0.14	68,275
CONSTRUCTION ELECTRICITY USAGE		580,829

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

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

CONSTRUCTION EQUIPMENT

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

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

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

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer Guidelines (33). 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 151,948 gallons of diesel fuel. 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 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Demolition	44	Rubber Tired Dozers	367	2	8	0.4	2,349	5,586
		Excavators	36	3	8	0.38	328	781
		Concrete/Industrial Saws	33	2	8	0.73	385	917
Site Preparation	44	Rubber Tired Dozers	367	1	8	0.4	1,174	2,793
		Crawler Tractors	87	2	8	0.43	599	1,424
Grading	65	Graders	148	1	8	0.41	485	1,706
		Excavators	36	2	8	0.38	219	769
		Scrapers	423	1	8	0.48	1,624	5,707
		Rubber Tired Dozers	367	1	8	0.40	1,174	4,126
		Crawler Tractors	87	2	8	0.43	599	2,103
Building Construction	707	Forklifts	82	3	8	0.20	394	15,042
		Generator Sets	14	3	8	0.74	249	9,502
		Cranes	367	1	8	0.29	851	32,539
		Welders	46	4	8	0.45	662	25,314
		Tractors/Loaders/Backhoes	84	4	8	0.37	995	38,008
Paving	65	Pavers	81	1	8	0.42	272	956
		Paving Equipment	89	2	8	0.36	513	1,801
		Rollers	36	1	8	0.38	109	385
Architectural Coating	108	Air Compressors	37	3	8	0.48	426	2,488
CONSTRUCTION FUEL DEMAND (GALLONS FUEL)								151,948

4.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, hauling, and vendors commuting to and from the site. The number of workers, hauling, and vendor trips are presented below in Table 4-6.

It should be noted that for Vendor Trips specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for Vendor Trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

The site currently contains existing structures totaling approximately 27,451 square feet, which will be demolished. In addition, the project will involve earthwork activities requiring 35,000 cubic yards of export material, all of which will be transported off-site. The associated transportation trips are detailed below.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Demolition	18	2	156
Site Preparation	8	2	0
Grading	18	4	67
Building Construction	322	39	0
Paving	10	0	0
Architectural Coating	64	0	0

4.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 4,410,604 VMT during the 39 months of construction (26). Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1³), and 25% are from light-duty-trucks (LDT2⁴). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (28). EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the Orange sub-area for the 2026 through 2029 calendar years. Data from EMFAC2021 is shown in Appendix 4.2.

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.

Table 4-7 provides an estimated annual fuel consumption resulting from Project construction worker trips. Based on Table 4-7, it is estimated that 141,112 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 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2026	LDA						
	Demolition	44	9	18.5	7,326	34.81	210
	Site Preparation	44	4	18.5	3,256	34.81	94
	LDT1						
	Demolition	44	5	18.5	4,070	26.28	155
	Site Preparation	44	2	18.5	1,628	26.28	62
	LDT2						
	Demolition	44	5	18.5	4,070	26.07	156
	Site Preparation	44	2	18.5	1,628	26.07	62
2027	LDA						
	Grading	65	9	18.5	10,823	35.67	303
	Building Construction	196	161	18.5	583,786	35.67	16,368
	LDT1						
	Grading	65	5	18.5	6,013	26.76	225
	Building Construction	196	81	18.5	293,706	26.76	10,975
	LDT2						
	Grading	65	5	18.5	6,013	26.65	226
	Building Construction	196	81	18.5	293,706	26.65	11,022
2028	LDA						
	Building Construction	260	161	18.5	774,410	36.55	21,189
	LDT1						
	Building Construction	260	81	18.5	389,610	27.29	14,277
	LDT2						
	Building Construction	260	81	18.5	389,610	27.24	14,304
2029	LDA						
	Building Construction	251	161	18.5	747,604	37.38	20,001

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
	Paving	65	5	18.5	6,013	37.38	161
	Architectural Coating	108	32	18.5	63,936	37.38	1,711
	LDT1						
	Building Construction	251	81	18.5	376,124	27.82	13,522
	Paving	65	3	18.5	3,608	27.82	130
	Architectural Coating	108	16	18.5	31,968	27.82	1,149
	LDT2						
	Building Construction	251	81	18.5	376,124	27.79	13,532
	Paving	65	3	18.5	3,608	27.79	130
	Architectural Coating	108	16	18.5	31,968	27.79	1,150
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION							141,112

4.3.6 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 517,283 VMT along area roadways for the Project over the duration of construction activity (26). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% of vendor trips are from heavy-heavy duty trucks (HHDT), and 100% of hauling trips are from HHDTs. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (26). 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 Orange sub-area for the 2026 through 2029 calendar years. Data from EMFAC2021 is shown in Appendix 4.2.

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2026	MHDT						
	Demolition	44	1	10.2	449	7.80	58
	Site Preparation	44	1	10.2	449	7.80	58
	HHDT (Vendor)						
	Demolition	44	1	10.2	449	6.20	72
	Site Preparation	44	1	10.2	449	6.20	72
	HHDT (Hauling)						
	Demolition	44	156	20	137,280	6.20	22,141
2027	MHD						

Year	Construction Activity	Duration (Days)	Vendor Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
	Grading	65	2	10.2	1,326	7.95	167
	Building Construction	196	20	10.2	39,984	7.95	5,031
	HHDT (Vendor)						
	Grading	65	2	10.2	1,326	6.32	210
	Building Construction	196	20	10.2	39,984	6.32	6,327
	HHDT (Hauling)						
	Grading	65	67	20	87,100	6.32	13,782
2028	MHDT						
	Building Construction	260	20	10.2	53,040	8.15	6,507
	HHDT (Vendor)						
	Building Construction	260	20	10.2	53,040	6.47	8,202
2029	MHDT						
	Building Construction	251	20	10.2	51,204	8.41	6,090
	HHDT (Vendor)						
	Building Construction	251	20	10.2	51,204	6.63	7,725
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION							76,442

As previously shown in Table 4-8, it is estimated that 76,442 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.

4.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation’s first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in the 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.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

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

4.4 OPERATIONAL ENERGY DEMANDS

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

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluating 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 (28). EMFAC2021 was run for the Orange sub-area for the 2029 calendar year. Data from EMFAC2021 is shown in Appendix 4.2.

The proposed Project is expected to generate approximately 1,624 total trips per weekday, 1,636 trips per Saturday, and 1,350 trips per Sunday, totaling approximately 6,781,304 annual VMT⁵.

As summarized in Table 4-9, the Project would result in an estimated annual fuel consumption of 241,875 gallons of fuel.

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

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	37.38	3,324,795	88,950
LDT1	27.82	262,442	9,435
LDT2	27.79	1,626,258	58,510
MDV	22.88	988,832	43,215
LHDT1	18.46	191,978	10,400
LHDT2	17.21	51,323	2,982
MHDT	8.41	106,284	12,642
HHDT	6.63	40,443	6,101
OBUS	6.86	4,033	588
UBUS	3.80	2,390	628
MCY	42.69	152,741	3,578
SBUS	6.78	6,531	964
MH	5.99	23,253	3,882
TOTAL (ALL VEHICLES)		6,781,304	241,875

4.4.4 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of electricity. Electricity would be supplied to the Project by APU. Electricity demands of the Project are summarized in Table 4-10 and provided in Appendix 4.1.

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.

⁵ The analysis uses the traffic data provided in the Traffic Analysis. Based on the Traffic Analysis, the Project would generate a total of 1,624 daily trips which were calculated using the ITE Land Use Code 221 weekday rate. It should be noted that, CalEEMod includes trips for Saturday and Sunday activities. For purposes of analysis and consistent with the Traffic Analysis, the trip rates for these days were derived from ITE Land Use Code 221.

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

Land Use	Electricity Demand (kWh/year)
Apartments Mid Rise	1,539,516
Parking Lot	280,847
PROJECT ENERGY DEMAND	1,820,363

4.4.5 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

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

ENHANCED VEHICLE FUEL EFFICIENCIES

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

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

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately \$86,910.57. 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 580,829 kWh.

Construction equipment used by the Project would result in a single event consumption of approximately 151,948 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption

of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 141,112 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDTs and HHDTs) will total approximately 76,442 gallons. Diesel fuel would be supplied by City and regional residential and 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 (34). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 OPERATIONAL ENERGY DEMANDS

TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 241,875 gallons of fuel.

Fuel would be provided by current and future residential and commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential 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 other residential 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.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.

- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (35).
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

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. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. 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: 1,820,363 kWh/year of electricity. Electricity would be supplied by APU. The Project proposes conventional residential 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 residential uses of similar scale and configuration.

Implementation of the Project would increase the demand for electricity at the Project site and petroleum consumption in the region during operation. However, the electrical consumption demands of the Project during operation would conform to the state's Title 24 and to CALGreen standards, which implement conservation measures. Further, the proposed Project would not directly require the construction of new energy generation or supply facilities and providers of electricity are in compliance with regulatory requirements that assist in conservation, including requirements that electrical providers achieve state-mandated renewable energy production requirements. With compliance with Title 24 conservation standards and other regulatory requirements, the Project would not be wasteful or inefficient or unnecessarily consume energy resources during construction or operation and would result in a less-than-significant impact with respect to consumption of energy resources.

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

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

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

Impact Analysis

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

Construction

Based on CalEEMod estimations, the Project, would result in approximately 4,927,887 vehicle miles traveled (VMT) related construction vehicle trips. Also, the Project would result in the consumption of an estimated 217,554 gallons of gasoline and diesel combined during construction of the Project. Additionally, on-site construction equipment would consume an estimated 151,948 gallons of diesel 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 ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

In summary, the Project's construction-related impacts related to electricity and fuel consumption would be less than significant.

Operation

Electricity and Natural Gas

Project operation would result in the consumption of 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, the Project would result in the consumption of approximately 1,820,363 kWh of electricity annually.

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 the Project. Fuel consumption would be primarily related to vehicle use by residents, visitors, and employees. Based on CalEEMod energy use estimations, project-related vehicle trips would result in approximately 6.78 million VMT and consume an estimated 241,875 gallons of gasoline and diesel combined, annually (see Appendices 4.1 through 4.3).

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

In conclusion, the Project would result in a less than significant impact related to this threshold and no mitigation is required.

5.2 ENERGY IMPACT 2

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

Impact Analysis

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

Construction

As discussed in Section 5.1 above, the Project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The 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 the construction of the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

California's Renewable Portfolio Standard (RPS) establishes a goal of renewable energy for local providers to be 44 percent by 2040. Similarly, the State is promoting renewable energy targets to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 5.1 above, the Project would result in approximately 1,820,363 kWh of electricity annually.

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, 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 the 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.

In conclusion, the Project would result in a less than significant impact related to this threshold and no mitigation is required.

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7 CERTIFICATIONS

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

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

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
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PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
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APPENDIX 4.1:

CALEEMOD PROJECT EMISSIONS MODEL OUTPUTS

15699 - Anaheim Hills Festival SPA (Apartments) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15699 - Anaheim Hills Festival SPA (Apartments)
Construction Start Date	9/1/2026
Operational Year	2029
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	21.0
Location	33.86508251537006, -117.75196363842772
County	Orange
City	Anaheim
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5794
EDFZ	7
Electric Utility	City of Anaheim Public Utilities Department
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Apartments Mid Rise	447	Dwelling Unit	8.84	424,144	93,027	—	1,332	—
Parking Lot	1,088	Space	7.36	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.05	28.6	35.0	43.7	0.11	1.10	16.6	17.6	1.02	2.90	3.84	—	14,650	14,650	0.97	1.74	22.6	15,215
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.43	29.4	35.5	48.6	0.11	1.10	16.6	17.6	1.02	2.90	3.84	—	14,643	14,643	0.96	1.74	0.59	15,186
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	9.62	15.1	27.4	0.04	0.49	3.35	3.70	0.45	0.81	1.26	—	6,591	6,591	0.24	0.33	4.43	6,674
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	1.76	2.76	5.01	0.01	0.09	0.61	0.67	0.08	0.15	0.23	—	1,091	1,091	0.04	0.05	0.73	1,105

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	4.05	2.68	35.0	27.4	0.11	1.02	16.6	17.6	0.95	2.90	3.84	—	14,650	14,650	0.97	1.74	22.6	15,215
2027	3.54	2.83	27.7	38.4	0.08	1.10	4.54	5.09	1.02	1.36	2.37	—	9,692	9,692	0.55	0.79	15.9	9,953
2028	3.30	2.72	17.9	37.4	0.05	0.49	4.54	5.03	0.45	1.08	1.53	—	8,970	8,970	0.25	0.22	14.3	9,055
2029	3.90	28.6	20.7	43.7	0.05	0.50	5.38	5.88	0.46	1.28	1.74	—	10,200	10,200	0.28	0.22	14.8	10,288
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.04	2.67	35.5	27.4	0.11	1.02	16.6	17.6	0.95	2.90	3.84	—	14,643	14,643	0.96	1.74	0.59	15,186
2027	3.53	2.82	27.9	36.2	0.08	1.10	4.54	5.09	1.02	1.36	2.37	—	9,683	9,683	0.55	0.79	0.41	9,934
2028	3.29	2.72	18.0	35.3	0.05	0.49	4.54	5.03	0.45	1.08	1.53	—	8,776	8,776	0.26	0.35	0.37	8,886
2029	4.43	29.4	25.0	48.6	0.06	0.65	5.51	6.17	0.60	1.31	1.91	—	11,141	11,141	0.33	0.39	0.39	11,268
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.70	0.50	5.89	4.79	0.02	0.21	2.25	2.45	0.19	0.46	0.65	—	2,034	2,034	0.13	0.21	1.20	2,102
2027	2.46	1.99	15.1	24.4	0.04	0.49	3.09	3.58	0.45	0.81	1.26	—	6,511	6,511	0.24	0.33	4.43	6,619
2028	2.36	1.95	12.9	25.7	0.03	0.35	3.21	3.56	0.33	0.76	1.09	—	6,323	6,323	0.19	0.25	4.42	6,406
2029	2.49	9.62	13.7	27.4	0.04	0.35	3.35	3.70	0.32	0.79	1.12	—	6,591	6,591	0.19	0.25	4.06	6,674
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.13	0.09	1.08	0.87	< 0.005	0.04	0.41	0.45	0.03	0.08	0.12	—	337	337	0.02	0.04	0.20	348
2027	0.45	0.36	2.76	4.44	0.01	0.09	0.56	0.65	0.08	0.15	0.23	—	1,078	1,078	0.04	0.05	0.73	1,096
2028	0.43	0.36	2.36	4.69	0.01	0.06	0.59	0.65	0.06	0.14	0.20	—	1,047	1,047	0.03	0.04	0.73	1,061
2029	0.45	1.76	2.50	5.01	0.01	0.06	0.61	0.67	0.06	0.14	0.20	—	1,091	1,091	0.03	0.04	0.67	1,105

2.3. Construction Emissions by Year, Mitigated

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

Year	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	4.05	2.68	35.0	27.4	0.11	1.02	16.6	17.6	0.95	2.90	3.84	—	14,650	14,650	0.97	1.74	22.6	15,215
2027	3.54	2.83	27.7	38.4	0.08	1.10	4.54	5.09	1.02	1.36	2.37	—	9,692	9,692	0.55	0.79	15.9	9,953
2028	3.30	2.72	17.9	37.4	0.05	0.49	4.54	5.03	0.45	1.08	1.53	—	8,970	8,970	0.25	0.22	14.3	9,055
2029	3.90	28.6	20.7	43.7	0.05	0.50	5.38	5.88	0.46	1.28	1.74	—	10,200	10,200	0.28	0.22	14.8	10,288
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.04	2.67	35.5	27.4	0.11	1.02	16.6	17.6	0.95	2.90	3.84	—	14,643	14,643	0.96	1.74	0.59	15,186
2027	3.53	2.82	27.9	36.2	0.08	1.10	4.54	5.09	1.02	1.36	2.37	—	9,683	9,683	0.55	0.79	0.41	9,934
2028	3.29	2.72	18.0	35.3	0.05	0.49	4.54	5.03	0.45	1.08	1.53	—	8,776	8,776	0.26	0.35	0.37	8,886
2029	4.43	29.4	25.0	48.6	0.06	0.65	5.51	6.17	0.60	1.31	1.91	—	11,141	11,141	0.33	0.39	0.39	11,268
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.70	0.50	5.89	4.79	0.02	0.21	2.25	2.45	0.19	0.46	0.65	—	2,034	2,034	0.13	0.21	1.20	2,102
2027	2.46	1.99	15.1	24.4	0.04	0.49	3.09	3.58	0.45	0.81	1.26	—	6,511	6,511	0.24	0.33	4.43	6,619
2028	2.36	1.95	12.9	25.7	0.03	0.35	3.21	3.56	0.33	0.76	1.09	—	6,323	6,323	0.19	0.25	4.42	6,406
2029	2.49	9.62	13.7	27.4	0.04	0.35	3.35	3.70	0.32	0.79	1.12	—	6,591	6,591	0.19	0.25	4.06	6,674
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.13	0.09	1.08	0.87	< 0.005	0.04	0.41	0.45	0.03	0.08	0.12	—	337	337	0.02	0.04	0.20	348
2027	0.45	0.36	2.76	4.44	0.01	0.09	0.56	0.65	0.08	0.15	0.23	—	1,078	1,078	0.04	0.05	0.73	1,096
2028	0.43	0.36	2.36	4.69	0.01	0.06	0.59	0.65	0.06	0.14	0.20	—	1,047	1,047	0.03	0.04	0.73	1,061
2029	0.45	1.76	2.50	5.01	0.01	0.06	0.61	0.67	0.06	0.14	0.20	—	1,091	1,091	0.03	0.04	0.67	1,105

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.	8.59	17.3	11.4	75.8	0.18	0.68	13.6	14.2	0.68	3.44	4.12	279	25,136	25,415	28.9	0.76	37.6	26,401
Mit.	8.59	17.3	11.4	75.8	0.18	0.68	13.6	14.2	0.68	3.44	4.12	279	25,053	25,332	28.9	0.76	37.6	26,318
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	< 0.5%	—	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.23	15.1	11.5	46.5	0.18	0.67	13.6	14.2	0.67	3.44	4.11	279	24,538	24,818	28.9	0.78	3.62	25,776
Mit.	6.23	15.1	11.5	46.5	0.18	0.67	13.6	14.2	0.67	3.44	4.11	279	24,456	24,735	28.9	0.78	3.62	25,694
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	< 0.5%	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.82	16.0	4.68	60.8	0.13	0.12	13.0	13.1	0.11	3.29	3.40	279	15,548	15,827	28.7	0.75	17.3	16,786
Mit.	6.82	16.0	4.68	60.8	0.13	0.12	13.0	13.1	0.11	3.29	3.40	279	15,466	15,745	28.7	0.75	17.3	16,704
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.24	2.92	0.85	11.1	0.02	0.02	2.37	2.39	0.02	0.60	0.62	46.2	2,574	2,620	4.76	0.12	2.86	2,779
Mit.	1.24	2.92	0.85	11.1	0.02	0.02	2.37	2.39	0.02	0.60	0.62	46.2	2,560	2,607	4.76	0.12	2.86	2,765
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	< 0.5%	—	< 0.5%

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	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
Area	3.19	12.5	7.65	28.6	0.05	0.61	—	0.61	0.61	—	0.61	0.00	9,480	9,480	0.18	0.02	—	9,490
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,598	1,598	0.03	< 0.005	—	1,600
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	8.59	17.3	11.4	75.8	0.18	0.68	13.6	14.2	0.68	3.44	4.12	279	25,136	25,415	28.9	0.76	37.6	26,401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
Area	0.87	10.3	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,598	1,598	0.03	< 0.005	—	1,600
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	6.23	15.1	11.5	46.5	0.18	0.67	13.6	14.2	0.67	3.44	4.11	279	24,538	24,818	28.9	0.78	3.62	25,776
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.16	4.63	4.01	43.2	0.13	0.07	13.0	13.0	0.07	3.29	3.36	—	12,960	12,960	0.52	0.50	14.6	13,136
Area	1.65	11.4	0.67	17.6	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	691	691	0.01	< 0.005	—	692
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,598	1,598	0.03	< 0.005	—	1,600
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	6.82	16.0	4.68	60.8	0.13	0.12	13.0	13.1	0.11	3.29	3.40	279	15,548	15,827	28.7	0.75	17.3	16,786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175
Area	0.30	2.08	0.12	3.22	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	114	114	< 0.005	< 0.005	—	115
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	265	265	< 0.005	< 0.005	—	265
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121
Waste	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Total	1.24	2.92	0.85	11.1	0.02	0.02	2.37	2.39	0.02	0.60	0.62	46.2	2,574	2,620	4.76	0.12	2.86	2,779

2.6. Operations Emissions by Sector, Mitigated

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

Sector	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	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
Area	3.19	12.5	7.65	28.6	0.05	0.61	—	0.61	0.61	—	0.61	0.00	9,480	9,480	0.18	0.02	—	9,490
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,516	1,516	0.03	< 0.005	—	1,517
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	8.59	17.3	11.4	75.8	0.18	0.68	13.6	14.2	0.68	3.44	4.12	279	25,053	25,332	28.9	0.76	37.6	26,318
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
Area	0.87	10.3	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,516	1,516	0.03	< 0.005	—	1,517
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	6.23	15.1	11.5	46.5	0.18	0.67	13.6	14.2	0.67	3.44	4.11	279	24,456	24,735	28.9	0.78	3.62	25,694
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.16	4.63	4.01	43.2	0.13	0.07	13.0	13.0	0.07	3.29	3.36	—	12,960	12,960	0.52	0.50	14.6	13,136
Area	1.65	11.4	0.67	17.6	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	691	691	0.01	< 0.005	—	692
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,516	1,516	0.03	< 0.005	—	1,517
Water	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Waste	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	6.82	16.0	4.68	60.8	0.13	0.12	13.0	13.1	0.11	3.29	3.40	279	15,466	15,745	28.7	0.75	17.3	16,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175
Area	0.30	2.08	0.12	3.22	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	114	114	< 0.005	< 0.005	—	115
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	251	251	< 0.005	< 0.005	—	251
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121
Waste	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Total	1.24	2.92	0.85	11.1	0.02	0.02	2.37	2.39	0.02	0.60	0.62	46.2	2,560	2,607	4.76	0.12	2.86	2,765

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.94	2.46	22.1	20.8	0.04	0.88	—	0.88	0.81	—	0.81	—	3,671	3,671	0.15	0.03	—	3,683
Demolition	—	—	—	—	—	—	13.5	13.5	—	2.05	2.05	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.94	2.46	22.1	20.8	0.04	0.88	—	0.88	0.81	—	0.81	—	3,671	3,671	0.15	0.03	—	3,683
Demolition	—	—	—	—	—	—	13.5	13.5	—	2.05	2.05	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.30	2.67	2.51	< 0.005	0.11	—	0.11	0.10	—	0.10	—	442	442	0.02	< 0.005	—	444
Demolition	—	—	—	—	—	—	1.63	1.63	—	0.25	0.25	—	—	—	—	—	—	—
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	0.49	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	—	73.3	73.3	< 0.005	< 0.005	—	73.5
Demolition	—	—	—	—	—	—	0.30	0.30	—	0.05	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.92	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	228	228	< 0.005	0.01	0.79	231
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.7	62.7	< 0.005	0.01	0.16	65.6
Hauling	1.05	0.16	12.8	5.65	0.07	0.14	2.82	2.96	0.14	0.79	0.93	—	10,689	10,689	0.81	1.69	21.6	11,235
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.80	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	217	217	< 0.005	0.01	0.02	219
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	< 0.005	65.5
Hauling	1.04	0.15	13.2	5.69	0.07	0.14	2.82	2.96	0.14	0.79	0.93	—	10,692	10,692	0.81	1.69	0.56	11,217
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.5	26.5	< 0.005	< 0.005	0.04	26.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	7.90
Hauling	0.13	0.02	1.61	0.68	0.01	0.02	0.34	0.35	0.02	0.09	0.11	—	1,289	1,289	0.10	0.20	1.13	1,353
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.39	4.39	< 0.005	< 0.005	0.01	4.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	1.31
Hauling	0.02	< 0.005	0.29	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	213	213	0.02	0.03	0.19	224

3.2. Demolition (2026) - Mitigated

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	2.94	2.46	22.1	20.8	0.04	0.88	—	0.88	0.81	—	0.81	—	3,671	3,671	0.15	0.03	—	3,683
Demolition	—	—	—	—	—	—	13.5	13.5	—	2.05	2.05	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.94	2.46	22.1	20.8	0.04	0.88	—	0.88	0.81	—	0.81	—	3,671	3,671	0.15	0.03	—	3,683
Demolition	—	—	—	—	—	—	13.5	13.5	—	2.05	2.05	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.30	2.67	2.51	< 0.005	0.11	—	0.11	0.10	—	0.10	—	442	442	0.02	< 0.005	—	444
Demolition	—	—	—	—	—	—	1.63	1.63	—	0.25	0.25	—	—	—	—	—	—	—
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	0.49	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	—	73.3	73.3	< 0.005	< 0.005	—	73.5
Demolition	—	—	—	—	—	—	0.30	0.30	—	0.05	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.92	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	228	228	< 0.005	0.01	0.79	231
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.7	62.7	< 0.005	0.01	0.16	65.6
Hauling	1.05	0.16	12.8	5.65	0.07	0.14	2.82	2.96	0.14	0.79	0.93	—	10,689	10,689	0.81	1.69	21.6	11,235
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.80	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	217	217	< 0.005	0.01	0.02	219
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	< 0.005	65.5
Hauling	1.04	0.15	13.2	5.69	0.07	0.14	2.82	2.96	0.14	0.79	0.93	—	10,692	10,692	0.81	1.69	0.56	11,217
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.5	26.5	< 0.005	< 0.005	0.04	26.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	7.90
Hauling	0.13	0.02	1.61	0.68	0.01	0.02	0.34	0.35	0.02	0.09	0.11	—	1,289	1,289	0.10	0.20	1.13	1,353
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.39	4.39	< 0.005	< 0.005	0.01	4.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	1.31
Hauling	0.02	< 0.005	0.29	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	213	213	0.02	0.03	0.19	224

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	1.74	1.46	13.1	12.0	0.02	0.70	—	0.70	0.64	—	0.64	—	2,076	2,076	0.08	0.02	—	2,084
Dust From Material Movement	—	—	—	—	—	—	1.98	1.98	—	0.91	0.91	—	—	—	—	—	—	—
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	0.21	0.18	1.58	1.44	< 0.005	0.08	—	0.08	0.08	—	0.08	—	250	250	0.01	< 0.005	—	251
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.26	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.4	41.4	< 0.005	< 0.005	—	41.6
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.9	92.9	< 0.005	< 0.005	0.01	94.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	< 0.005	65.5
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	7.90
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	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.91
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	1.31
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

3.4. Site Preparation (2026) - Mitigated

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

Location	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	1.74	1.46	13.1	12.0	0.02	0.70	—	0.70	0.64	—	0.64	—	2,076	2,076	0.08	0.02	—	2,084

Dust From Material Movement	—	—	—	—	—	—	1.98	1.98	—	0.91	0.91	—	—	—	—	—	—	—
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	0.21	0.18	1.58	1.44	< 0.005	0.08	—	0.08	0.08	—	0.08	—	250	250	0.01	< 0.005	—	251
Dust From Material Movement	—	—	—	—	—	—	0.24	0.24	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.26	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.4	41.4	< 0.005	< 0.005	—	41.6
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.9	92.9	< 0.005	< 0.005	0.01	94.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	< 0.005	65.5
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	7.90
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	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.91
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	1.31
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 (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	2.56	22.2	22.9	0.04	1.04	—	1.04	0.96	—	0.96	—	4,822	4,822	0.20	0.04	—	4,839
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	2.56	22.2	22.9	0.04	1.04	—	1.04	0.96	—	0.96	—	4,822	4,822	0.20	0.04	—	4,839

Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	3.95	4.07	0.01	0.19	—	0.19	0.17	—	0.17	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.17	0.17	—	—	—	—	—	—	—
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	0.72	0.74	< 0.005	0.03	—	0.03	0.03	—	0.03	—	142	142	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
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	0.06	0.05	0.05	0.87	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	224	224	< 0.005	0.01	0.71	227
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.29	129
Hauling	0.42	0.07	5.32	2.38	0.03	0.06	1.22	1.28	0.06	0.34	0.40	—	4,523	4,523	0.35	0.73	8.62	4,758
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.05	0.05	0.74	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.02	216
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.01	128
Hauling	0.42	0.06	5.54	2.40	0.03	0.06	1.22	1.28	0.06	0.34	0.40	—	4,525	4,525	0.35	0.73	0.22	4,751
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.5	38.5	< 0.005	< 0.005	0.05	39.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.9	21.9	< 0.005	< 0.005	0.02	22.9
Hauling	0.07	0.01	0.99	0.42	0.01	0.01	0.21	0.23	0.01	0.06	0.07	—	806	806	0.06	0.13	0.66	847
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.37	6.37	< 0.005	< 0.005	0.01	6.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	< 0.005	3.79
Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	0.01	0.02	0.11	140

3.6. Grading (2027) - Mitigated

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	3.05	2.56	22.2	22.9	0.04	1.04	—	1.04	0.96	—	0.96	—	4,822	4,822	0.20	0.04	—	4,839
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.05	2.56	22.2	22.9	0.04	1.04	—	1.04	0.96	—	0.96	—	4,822	4,822	0.20	0.04	—	4,839
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	3.95	4.07	0.01	0.19	—	0.19	0.17	—	0.17	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.17	0.17	—	—	—	—	—	—	—
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	0.72	0.74	< 0.005	0.03	—	0.03	0.03	—	0.03	—	142	142	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
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	0.06	0.05	0.05	0.87	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	224	224	< 0.005	0.01	0.71	227
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.29	129
Hauling	0.42	0.07	5.32	2.38	0.03	0.06	1.22	1.28	0.06	0.34	0.40	—	4,523	4,523	0.35	0.73	8.62	4,758

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.74	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.02	216
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	123	123	0.01	0.02	0.01	128
Hauling	0.42	0.06	5.54	2.40	0.03	0.06	1.22	1.28	0.06	0.34	0.40	—	4,525	4,525	0.35	0.73	0.22	4,751
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.5	38.5	< 0.005	< 0.005	0.05	39.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.9	21.9	< 0.005	< 0.005	0.02	22.9
Hauling	0.07	0.01	0.99	0.42	0.01	0.01	0.21	0.23	0.01	0.06	0.07	—	806	806	0.06	0.13	0.66	847
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.37	6.37	< 0.005	< 0.005	0.01	6.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	< 0.005	3.79
Hauling	0.01	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	0.01	0.02	0.11	140

3.7. Building Construction (2027) - Unmitigated

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

Location	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	2.26	1.88	16.5	21.9	0.04	0.54	—	0.54	0.50	—	0.50	—	3,750	3,750	0.15	0.03	—	3,763
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	2.26	1.88	16.5	21.9	0.04	0.54	—	0.54	0.50	—	0.50	—	3,750	3,750	0.15	0.03	—	3,763
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	1.21	1.01	8.86	11.7	0.02	0.29	—	0.29	0.27	—	0.27	—	2,011	2,011	0.08	0.02	—	2,018
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	0.22	0.18	1.62	2.14	< 0.005	0.05	—	0.05	0.05	—	0.05	—	333	333	0.01	< 0.005	—	334
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	1.07	0.92	0.96	15.9	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	4,120	4,120	0.04	0.15	13.1	4,180
Vendor	0.09	0.03	1.20	0.59	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,201	1,201	0.06	0.16	2.87	1,254
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	1.07	0.91	0.99	13.7	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,921	3,921	0.05	0.15	0.34	3,968
Vendor	0.09	0.02	1.25	0.61	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,201	1,201	0.06	0.16	0.07	1,252
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	0.57	0.49	0.60	7.65	0.00	0.00	2.23	2.23	0.00	0.52	0.52	—	2,131	2,131	0.03	0.08	3.03	2,159
Vendor	0.05	0.01	0.67	0.32	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	644	644	0.03	0.09	0.66	672

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	0.10	0.09	0.11	1.40	0.00	0.00	0.41	0.41	0.00	0.10	0.10	—	353	353	< 0.005	0.01	0.50	358
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.01	0.11	111
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

3.8. Building Construction (2027) - Mitigated

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

Location	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	2.26	1.88	16.5	21.9	0.04	0.54	—	0.54	0.50	—	0.50	—	3,750	3,750	0.15	0.03	—	3,763
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	2.26	1.88	16.5	21.9	0.04	0.54	—	0.54	0.50	—	0.50	—	3,750	3,750	0.15	0.03	—	3,763
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	1.21	1.01	8.86	11.7	0.02	0.29	—	0.29	0.27	—	0.27	—	2,011	2,011	0.08	0.02	—	2,018
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	0.22	0.18	1.62	2.14	< 0.005	0.05	—	0.05	0.05	—	0.05	—	333	333	0.01	< 0.005	—	334
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	1.07	0.92	0.96	15.9	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	4,120	4,120	0.04	0.15	13.1	4,180
Vendor	0.09	0.03	1.20	0.59	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,201	1,201	0.06	0.16	2.87	1,254
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	1.07	0.91	0.99	13.7	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,921	3,921	0.05	0.15	0.34	3,968
Vendor	0.09	0.02	1.25	0.61	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,201	1,201	0.06	0.16	0.07	1,252
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	0.57	0.49	0.60	7.65	0.00	0.00	2.23	2.23	0.00	0.52	0.52	—	2,131	2,131	0.03	0.08	3.03	2,159
Vendor	0.05	0.01	0.67	0.32	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	644	644	0.03	0.09	0.66	672
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	0.10	0.09	0.11	1.40	0.00	0.00	0.41	0.41	0.00	0.10	0.10	—	353	353	< 0.005	0.01	0.50	358
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.01	0.11	111
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. Building Construction (2028) - 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
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.17	1.81	15.9	21.8	0.04	0.48	—	0.48	0.45	—	0.45	—	3,751	3,751	0.15	0.03	—	3,763
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	2.17	1.81	15.9	21.8	0.04	0.48	—	0.48	0.45	—	0.45	—	3,751	3,751	0.15	0.03	—	3,763
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	1.56	1.30	11.4	15.6	0.03	0.35	—	0.35	0.32	—	0.32	—	2,686	2,686	0.11	0.02	—	2,696
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	0.28	0.24	2.08	2.86	0.01	0.06	—	0.06	0.06	—	0.06	—	445	445	0.02	< 0.005	—	446
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	1.04	0.89	0.83	15.0	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	4,047	4,047	0.04	0.02	11.7	4,066
Vendor	0.09	0.02	1.15	0.58	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,173	1,173	0.06	0.16	2.58	1,226
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	1.04	0.88	0.97	12.9	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,852	3,852	0.05	0.15	0.30	3,899
Vendor	0.08	0.02	1.20	0.59	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,173	1,173	0.06	0.16	0.07	1,224
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	0.75	0.64	0.70	9.66	0.00	0.00	2.97	2.97	0.00	0.70	0.70	—	2,796	2,796	0.04	0.11	3.62	2,833
Vendor	0.06	0.02	0.86	0.42	0.01	0.01	0.24	0.24	0.01	0.07	0.07	—	840	840	0.04	0.12	0.80	877
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	0.14	0.12	0.13	1.76	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	463	463	0.01	0.02	0.60	469
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	0.01	0.02	0.13	145
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

3.10. Building Construction (2028) - Mitigated

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	2.17	1.81	15.9	21.8	0.04	0.48	—	0.48	0.45	—	0.45	—	3,751	3,751	0.15	0.03	—	3,763
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	2.17	1.81	15.9	21.8	0.04	0.48	—	0.48	0.45	—	0.45	—	3,751	3,751	0.15	0.03	—	3,763
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	1.56	1.30	11.4	15.6	0.03	0.35	—	0.35	0.32	—	0.32	—	2,686	2,686	0.11	0.02	—	2,696
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	0.28	0.24	2.08	2.86	0.01	0.06	—	0.06	0.06	—	0.06	—	445	445	0.02	< 0.005	—	446
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	1.04	0.89	0.83	15.0	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	4,047	4,047	0.04	0.02	11.7	4,066
Vendor	0.09	0.02	1.15	0.58	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,173	1,173	0.06	0.16	2.58	1,226
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	1.04	0.88	0.97	12.9	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,852	3,852	0.05	0.15	0.30	3,899
Vendor	0.08	0.02	1.20	0.59	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,173	1,173	0.06	0.16	0.07	1,224
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	0.75	0.64	0.70	9.66	0.00	0.00	2.97	2.97	0.00	0.70	0.70	—	2,796	2,796	0.04	0.11	3.62	2,833
Vendor	0.06	0.02	0.86	0.42	0.01	0.01	0.24	0.24	0.01	0.07	0.07	—	840	840	0.04	0.12	0.80	877

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	0.14	0.12	0.13	1.76	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	463	463	0.01	0.02	0.60	469
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	0.01	0.02	0.13	145
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. Building Construction (2029) - 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	2.11	1.76	15.4	21.8	0.04	0.44	—	0.44	0.41	—	0.41	—	3,750	3,750	0.15	0.03	—	3,763
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	2.11	1.76	15.4	21.8	0.04	0.44	—	0.44	0.41	—	0.41	—	3,750	3,750	0.15	0.03	—	3,763
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	1.45	1.21	10.6	15.0	0.03	0.30	—	0.30	0.28	—	0.28	—	2,576	2,576	0.10	0.02	—	2,584
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	0.22	1.93	2.73	< 0.005	0.06	—	0.06	0.05	—	0.05	—	426	426	0.02	< 0.005	—	428
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	1.01	0.86	0.82	14.1	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,979	3,979	0.04	0.02	10.4	3,996
Vendor	0.09	0.02	1.10	0.56	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,142	1,142	0.06	0.16	2.31	1,194
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	1.00	0.85	0.83	12.1	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,787	3,787	0.04	0.15	0.27	3,834
Vendor	0.08	0.02	1.15	0.57	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,142	1,142	0.06	0.16	0.06	1,193
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	0.68	0.58	0.57	8.73	0.00	0.00	2.85	2.85	0.00	0.67	0.67	—	2,637	2,637	0.03	0.10	3.08	2,672
Vendor	0.06	0.02	0.79	0.39	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	784	784	0.04	0.11	0.68	820
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	0.12	0.11	0.10	1.59	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	437	437	< 0.005	0.02	0.51	442
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	130	130	0.01	0.02	0.11	136
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

3.12. Building Construction (2029) - Mitigated

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
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	1.76	15.4	21.8	0.04	0.44	—	0.44	0.41	—	0.41	—	3,750	3,750	0.15	0.03	—	3,763
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	2.11	1.76	15.4	21.8	0.04	0.44	—	0.44	0.41	—	0.41	—	3,750	3,750	0.15	0.03	—	3,763
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	1.45	1.21	10.6	15.0	0.03	0.30	—	0.30	0.28	—	0.28	—	2,576	2,576	0.10	0.02	—	2,584
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	0.22	1.93	2.73	< 0.005	0.06	—	0.06	0.05	—	0.05	—	426	426	0.02	< 0.005	—	428
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	1.01	0.86	0.82	14.1	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,979	3,979	0.04	0.02	10.4	3,996
Vendor	0.09	0.02	1.10	0.56	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,142	1,142	0.06	0.16	2.31	1,194
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	1.00	0.85	0.83	12.1	0.00	0.00	4.21	4.21	0.00	0.99	0.99	—	3,787	3,787	0.04	0.15	0.27	3,834
Vendor	0.08	0.02	1.15	0.57	0.01	0.01	0.33	0.34	0.01	0.09	0.10	—	1,142	1,142	0.06	0.16	0.06	1,193
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	0.68	0.58	0.57	8.73	0.00	0.00	2.85	2.85	0.00	0.67	0.67	—	2,637	2,637	0.03	0.10	3.08	2,672
Vendor	0.06	0.02	0.79	0.39	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	784	784	0.04	0.11	0.68	820
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	0.12	0.11	0.10	1.59	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	437	437	< 0.005	0.02	0.51	442
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	130	130	0.01	0.02	0.11	136
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

3.13. Paving (2029) - 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	0.51	0.43	4.27	6.87	0.01	0.15	—	0.15	0.14	—	0.14	—	1,053	1,053	0.04	0.01	—	1,057
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.76	1.22	< 0.005	0.03	—	0.03	0.02	—	0.02	—	188	188	0.01	< 0.005	—	188
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	0.02	0.01	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
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	0.03	0.03	0.03	0.38	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	118	118	< 0.005	< 0.005	0.01	119
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	< 0.005	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.2	21.2	< 0.005	< 0.005	0.02	21.5
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	< 0.005	3.56

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

3.14. Paving (2029) - Mitigated

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	0.51	0.43	4.27	6.87	0.01	0.15	—	0.15	0.14	—	0.14	—	1,053	1,053	0.04	0.01	—	1,057
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.76	1.22	< 0.005	0.03	—	0.03	0.02	—	0.02	—	188	188	0.01	< 0.005	—	188
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	0.02	0.01	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
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	0.03	0.03	0.03	0.38	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	118	118	< 0.005	< 0.005	0.01	119
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	< 0.005	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.2	21.2	< 0.005	< 0.005	0.02	21.5
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	< 0.005	3.56
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

3.15. Architectural Coating (2029) - 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	0.50	0.41	3.18	4.45	0.01	0.05	—	0.05	0.05	—	0.05	—	534	534	0.02	< 0.005	—	536

Architectural	—	25.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.41	3.18	4.45	0.01	0.05	—	0.05	0.05	—	0.05	—	534	534	0.02	< 0.005	—	536
Architectural Coatings	—	25.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.94	1.32	< 0.005	0.02	—	0.02	0.01	—	0.01	—	158	158	0.01	< 0.005	—	159
Architectural Coatings	—	7.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.03	0.02	0.17	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.2	26.2	< 0.005	< 0.005	—	26.3
Architectural Coatings	—	1.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.20	0.17	0.16	2.82	0.00	0.00	0.84	0.84	0.00	0.20	0.20	—	796	796	0.01	< 0.005	2.08	799
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	0.20	0.17	0.17	2.42	0.00	0.00	0.84	0.84	0.00	0.20	0.20	—	757	757	0.01	0.03	0.05	767
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	0.06	0.05	0.05	0.75	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	227	227	< 0.005	0.01	0.27	230
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	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.04	38.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2029) - Mitigated

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	0.50	0.41	3.18	4.45	0.01	0.05	—	0.05	0.05	—	0.05	—	534	534	0.02	< 0.005	—	536

Architectural Coatings	—	25.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.41	3.18	4.45	0.01	0.05	—	0.05	0.05	—	0.05	—	534	534	0.02	< 0.005	—	536
Architectural Coatings	—	25.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.94	1.32	< 0.005	0.02	—	0.02	0.01	—	0.01	—	158	158	0.01	< 0.005	—	159
Architectural Coatings	—	7.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.03	0.02	0.17	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.2	26.2	< 0.005	< 0.005	—	26.3
Architectural Coatings	—	1.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.20	0.17	0.16	2.82	0.00	0.00	0.84	0.84	0.00	0.20	0.20	—	796	796	0.01	< 0.005	2.08	799
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	0.20	0.17	0.17	2.42	0.00	0.00	0.84	0.84	0.00	0.20	0.20	—	757	757	0.01	0.03	0.05	767
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	0.06	0.05	0.05	0.75	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	227	227	< 0.005	0.01	0.27	230
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	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.04	38.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
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
Total	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
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
Total	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175
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
Total	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175

4.1.2. Mitigated

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

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

Apartme Mid Rise	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
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
Total	5.39	4.85	3.77	47.2	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,759	13,759	0.53	0.49	34.9	13,953
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
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
Total	5.36	4.81	4.10	43.4	0.13	0.07	13.6	13.6	0.07	3.44	3.51	—	13,229	13,229	0.54	0.51	0.90	13,396
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175
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
Total	0.94	0.85	0.73	7.88	0.02	0.01	2.37	2.38	0.01	0.60	0.61	—	2,146	2,146	0.09	0.08	2.42	2,175

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,365	1,365	0.03	< 0.005	—	1,366
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	234	234	< 0.005	< 0.005	—	234
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,598	1,598	0.03	< 0.005	—	1,600
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,365	1,365	0.03	< 0.005	—	1,366
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	234	234	< 0.005	< 0.005	—	234
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,598	1,598	0.03	< 0.005	—	1,600
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	226	226	< 0.005	< 0.005	—	226
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	38.7	38.7	< 0.005	< 0.005	—	38.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	265	265	< 0.005	< 0.005	—	265

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,282	1,282	0.02	< 0.005	—	1,283

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	234	234	< 0.005	< 0.005	—	234
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,516	1,516	0.03	< 0.005	—	1,517
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,282	1,282	0.02	< 0.005	—	1,283
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	234	234	< 0.005	< 0.005	—	234
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,516	1,516	0.03	< 0.005	—	1,517
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	< 0.005	< 0.005	—	212
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	38.7	38.7	< 0.005	< 0.005	—	38.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	251	251	< 0.005	< 0.005	—	251

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	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
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	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
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	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
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

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	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
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	0.00	0.00	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
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	0.00	0.00	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
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Consum er Products	—	9.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipme nt	2.32	2.20	0.24	25.4	< 0.005	0.01	—	0.01	0.01	—	0.01	—	67.8	67.8	< 0.005	< 0.005	—	68.0
Total	3.19	12.5	7.65	28.6	0.05	0.61	—	0.61	0.61	—	0.61	0.00	9,480	9,480	0.18	0.02	—	9,490

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Consumer Products	—	9.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.87	10.3	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	107	107	< 0.005	< 0.005	—	107
Consumer Products	—	1.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.28	0.03	3.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.69	7.69	< 0.005	< 0.005	—	7.72
Total	0.30	2.08	0.12	3.22	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	114	114	< 0.005	< 0.005	—	115

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422

Consumer	—	9.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.32	2.20	0.24	25.4	< 0.005	0.01	—	0.01	0.01	—	0.01	—	67.8	67.8	< 0.005	< 0.005	—	68.0
Total	3.19	12.5	7.65	28.6	0.05	0.61	—	0.61	0.61	—	0.61	0.00	9,480	9,480	0.18	0.02	—	9,490
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Consumer Products	—	9.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.87	10.3	7.41	3.16	0.05	0.60	—	0.60	0.60	—	0.60	0.00	9,412	9,412	0.18	0.02	—	9,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	107	107	< 0.005	< 0.005	—	107
Consumer Products	—	1.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.28	0.03	3.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.69	7.69	< 0.005	< 0.005	—	7.72
Total	0.30	2.08	0.12	3.22	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	114	114	< 0.005	< 0.005	—	115

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	299	400	10.4	0.25	—	733
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	49.5	66.2	1.72	0.04	—	121

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.8	0.00	—	623
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.72	2.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	9/1/2026	10/30/2026	5.00	44.0	20
Site Preparation	Site Preparation	11/2/2026	12/31/2026	5.00	44.0	10
Grading	Grading	1/1/2027	4/1/2027	5.00	65.0	30
Building Construction	Building Construction	4/2/2027	12/17/2029	5.00	707	300
Paving	Paving	10/1/2029	12/28/2029	5.00	65.0	20
Architectural Coating	Architectural Coating	8/1/2029	12/28/2029	5.00	108	20

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	2.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	3.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Average	4.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	3.00	8.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	2.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	3.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Average	4.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	3.00	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	17.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	156	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	67.3	20.0	HHDT

Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	322	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	39.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	64.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	17.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	2.00	10.2	HHDT,MHDT
Demolition	Hauling	156	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	10.2	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	67.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	322	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	39.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	64.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	858,892	286,297	0.00	0.00	19,236

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	27,451	—
Site Preparation	—	—	66.0	0.00	—
Grading	—	35,000	195	0.00	—
Paving	0.00	0.00	0.00	0.00	7.36

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
Apartments Mid Rise	—	0%
Parking Lot	7.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	469	0.01	< 0.005
2028	0.00	311	0.01	< 0.005
2029	0.00	304	0.01	< 0.005
2026	0.00	568	0.01	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,623	1,636	1,350	578,734	19,013	19,170	15,818	6,781,304
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,623	1,636	1,350	578,734	19,013	19,170	15,818	6,781,304
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	447

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	447
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0

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)
858891.6	286,297	0.00	0.00	19,236

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	250
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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)
Apartments Mid Rise	1,638,628	304	0.0056	0.0006	0.00
Parking Lot	280,847	304	0.0056	0.0006	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,539,516	304	0.0056	0.0006	0.00
Parking Lot	280,847	304	0.0056	0.0006	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	52,724,250	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	52,724,250	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	331	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	331	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	User Defined	750	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	User Defined	750	< 0.005	2.50	2.50	10.0

Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

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

5.16.1. Emergency Generators and Fire Pumps

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

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.0	annual days of extreme heat
Extreme Precipitation	4.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.46	annual hectares burned

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

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

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

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

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	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	0	0	0	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	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
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	1	1	1	2

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	59.7
AQ-PM	86.9
AQ-DPM	40.4
Drinking Water	57.1
Lead Risk Housing	3.86

Pesticides	0.00
Toxic Releases	81.7
Traffic	86.0
Effect Indicators	—
CleanUp Sites	2.07
Groundwater	0.00
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	7.98
Cardio-vascular	22.7
Low Birth Weights	53.8
Socioeconomic Factor Indicators	—
Education	11.4
Housing	60.9
Linguistic	52.0
Poverty	10.7
Unemployment	6.30

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	87.501604
Employed	97.78005903
Median HI	68.304889

Education	—
Bachelor's or higher	73.68150905
High school enrollment	100
Preschool enrollment	82.98472989
Transportation	—
Auto Access	48.80020531
Active commuting	1.039394328
Social	—
2-parent households	35.37790325
Voting	56.91004748
Neighborhood	—
Alcohol availability	66.57256512
Park access	50.90465803
Retail density	80.49531631
Supermarket access	54.49762607
Tree canopy	71.89785705
Housing	—
Homeownership	61.08045682
Housing habitability	33.90221994
Low-inc homeowner severe housing cost burden	21.73745669
Low-inc renter severe housing cost burden	15.92454767
Uncrowded housing	84.29359682
Health Outcomes	—
Insured adults	85.29449506
Arthritis	60.6
Asthma ER Admissions	90.4
High Blood Pressure	65.9

Cancer (excluding skin)	29.3
Asthma	69.3
Coronary Heart Disease	79.3
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	85.5
Life Expectancy at Birth	96.9
Cognitively Disabled	64.4
Physically Disabled	21.7
Heart Attack ER Admissions	63.6
Mental Health Not Good	76.1
Chronic Kidney Disease	79.8
Obesity	86.9
Pedestrian Injuries	19.6
Physical Health Not Good	82.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	16.3
Current Smoker	73.3
No Leisure Time for Physical Activity	77.8
Climate Change Exposures	—
Wildfire Risk	12.1
SLR Inundation Area	0.0
Children	73.7
Elderly	26.8
English Speaking	41.4
Foreign-born	50.3
Outdoor Workers	61.9

Climate Change Adaptive Capacity	—
Impervious Surface Cover	69.7
Traffic Density	89.2
Traffic Access	23.0
Other Indices	—
Hardship	13.7
Other Decision Support	—
2016 Voting	80.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	22.0
Healthy Places Index Score for Project Location (b)	79.0
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	Taken from site plan Based on project description, Project site will be 16.20 acres.
Construction: Construction Phases	Taken from client data Building Construction, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	Taken from client provided data. T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases. Standard 8 hours work days.
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Operations: Vehicle Data	Trip characteristics based on information provided in the Trip Generation.
Operations: Hearths	SCAQMD Rule 445 no wood burning devices. Wood burning devices added to gas devices.
Operations: Water and Waste Water	Based on client data, the anticipated water demand would be 52,724,250 gal/year.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Architectural Coatings	SCAQMD Rule 1113
Operations: Energy Use	Project will not utilize natural gas.

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APPENDIX 4.2:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Gasoline	5.642094151	552.7116358	0.124867026	124.8670257	225967.4234	552.7116358	1401053.414	6.20	HHDT
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Diesel	11688.1985	1295979.382	211.0878506	211087.8506		1295979.382			
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Electricity	144.7973925	14631.96518	0	0		14631.96518			
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Natural Gas	1447.890886	89889.3555	14.75470587	14754.70587		89889.3555			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Gasoline	1049515.92	41577927.11	1326.240617	1326240.617	1354714.628	41577927.11	47152803.2	34.81	LDA
Orange (SC)	2026	LDA	Aggregate	Aggregate	Diesel	2742.173139	80362.1723	1.843101131	1843.101131		80362.1723			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Electricity	81098.87481	3862245.078	0	0		3862245.078			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Plug-in Hybrid	35696.79687	1632268.837	26.63090991	26630.90991		1632268.837			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Gasoline	95040.06341	3392265.426	130.0301381	130030.1381	130251.5301	3392265.426	3423497.058	26.28	LDT1
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Diesel	24.49979621	362.8616544	0.015149993	15.14999261		362.8616544			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Electricity	361.8710153	16951.55958	0	0		16951.55958			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybrid	270.687928	13917.21072	0.206242024	206.2420243		13917.21072			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Gasoline	536812.5168	21784157.47	849.8319221	849831.9221	856816.8527	21784157.47	22339582.21	26.07	LDT2
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Diesel	2150.46559	88467.05453	2.651974699	2651.974699		88467.05453			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Electricity	5257.386579	188253.2028	0	0		188253.2028			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybrid	5706.320321	278704.4829	4.332955856	4332.955856		278704.4829			
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Gasoline	41098.7832	1657395.449	113.3264813	113326.4813	159962.8956	1657395.449	2688810.497	16.81	LHDT1
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Diesel	23010.07791	976534.0014	46.63641428	46636.41428		976534.0014			
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Electricity	815.1958673	54881.04636	0	0		54881.04636			
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Gasoline	6615.094062	247700.2283	19.47647629	19476.47629	43296.80815	247700.2283	683461.7416	15.79	LHDT2
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Diesel	10012.14742	422248.7801	23.82033186	23820.33186		422248.7801			
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Electricity	211.0818991	13512.73317	0	0		13512.73317			
Orange (SC)	2026	MCY	Aggregate	Aggregate	Gasoline	51778.70958	330192.3764	7.778574027	7778.574027	7778.574027	330192.3764	330192.3764	42.45	MCY
Orange (SC)	2026	MDV	Aggregate	Aggregate	Gasoline	326894.2358	12693098.03	610.0425653	610042.5653	619837.9048	12693098.03	13238016.12	21.36	MDV
Orange (SC)	2026	MDV	Aggregate	Aggregate	Diesel	4570.655518	177255.4948	7.136823534	7136.823534		177255.4948			
Orange (SC)	2026	MDV	Aggregate	Aggregate	Electricity	5641.41152	201874.3361	0	0		201874.3361			
Orange (SC)	2026	MDV	Aggregate	Aggregate	Plug-in Hybrid	3648.256691	165788.2556	2.658516014	2658.516014		165788.2556			
Orange (SC)	2026	MH	Aggregate	Aggregate	Gasoline	5656.411647	55665.04345	11.39189816	11391.89816	14295.14262	55665.04345	85134.42943	5.96	MH
Orange (SC)	2026	MH	Aggregate	Aggregate	Diesel	3003.794796	29469.38598	2.903244461	2903.244461		29469.38598			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Gasoline	7090.881325	361926.9994	69.26601079	69266.01079	200020.4322	361926.9994	1560062.836	7.80	MHDT
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Diesel	28484.43632	1163539.561	129.1722072	129172.2072		1163539.561			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Electricity	416.2854567	21163.22493	0	0		21163.22493			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Natural Gas	292.2448194	13433.05103	1.582214286	1582.214286		13433.05103			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Gasoline	819.5446697	33711.35172	6.36419335	6364.19335	11996.95191	33711.35172	76622.13585	6.39	OBUS
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Diesel	495.7657654	36691.85325	5.032440237	5032.440237		36691.85325			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Electricity	9.821208849	732.8008896	0	0		732.8008896			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Natural Gas	92.91719861	5486.130001	0.600318324	600.3183242		5486.130001			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Gasoline	688.5633033	31112.44458	3.471010776	3471.010776	10147.82317	31112.44458	67092.72964	6.61	SBUS
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Diesel	756.2070806	15379.61859	2.069129743	2069.129743		15379.61859			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Electricity	19.66639619	599.0783053	0	0		599.0783053			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Natural Gas	808.8277787	20001.58816	4.607682648	4607.682648		20001.58816			
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Gasoline	256.8740368	42376.0564	3.473985672	3473.985672	40832.18322	42376.0564	153702.2412	3.76	UBUS
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Electricity	4.037405551	77.72005682	0	0		77.72005682			
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Natural Gas	578.8563618	111248.4647	37.35819755	37358.19755		111248.4647			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Gasoline	5.373929496	547.76404	0.121762202	121.7622018	225529.8742	547.76404	1425352.343	6.32	HHDT
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Diesel	11908.96955	1309093.975	210.5185392	210518.5392		1309093.975			
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Electricity	233.8771255	23615.4586	0	0		23615.4586			
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Natural Gas	1499.6845	92095.14564	14.88957273	14889.57273		92095.14564			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Gasoline	1043775.809	41402174.22	1296.154677	1296154.677	1324994.051	41402174.22	47257614.15	35.67	LDA
Orange (SC)	2027	LDA	Aggregate	Aggregate	Diesel	2455.862765	72324.22786	1.642347379	1642.347379		72324.22786			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Electricity	86904.1211	4089426.711	0	0		4089426.711			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Plug-in Hybrid	37476.38962	1693688.99	27.19702677	27197.02677		1693688.99			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Gasoline	93827.3378	3351768.879	126.4355551	126435.5551	126700.5057	3351768.879	3390764.83	26.76	LDT1
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Diesel	11.77289151	181.1937183	0.007295538	7.295538107		181.1937183			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Electricity	446.5153511	21261.3118	0	0		21261.3118			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Plug-in Hybrid	345.6382808	17553.4455	0.257655066	257.6550662		17553.4455			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Gasoline	543469.3082	22020144.82	842.3786957	842378.6957	849787.4496	22020144.82	22645017.5	26.65	LDT2
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Diesel	2178.395085	88903.81695	2.624311241	2624.311241		88903.81695			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Electricity	6350.417939	224424.9867	0	0		224424.9867			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Plug-in Hybrid	6479.43822	311543.8729	4.784442655	4784.442655		311543.8729			
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Gasoline	40902.86203	1647637.185	110.6705061	110670.5061	157990.8844	1647637.185	2733707.522	17.30	LHDT1
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Diesel	23584.12171	995051.7389	47.32037824	47320.37824		995051.7389			
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Electricity	1389.11065	91018.59866	0	0		91018.59866			
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Gasoline	6543.090594	244222.6914	18.89234936	18892.34936	43204.37782	244222.6914	700309.2763	16.21	LHDT2
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Diesel	10371.194	433595.3221	24.31202845	24312.02845		433595.3221			
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Electricity	360.8389761	22491.2628	0	0		22491.2628			
Orange (SC)	2027	MCY	Aggregate	Aggregate	Gasoline	52507.36673	334153.7498	7.864502999	7864.502999	7864.502999	334153.7498	334153.7498	42.49	MCY
Orange (SC)	2027	MDV	Aggregate	Aggregate	Gasoline	328296.2492	12751503.06	600.8686692	600868.6692	610732.1674	12751503.06	13349514.38	21.86	MDV
Orange (SC)	2027	MDV	Aggregate	Aggregate	Diesel	4528.513812	174319.4796	6.920085027	6920.085027		174319.4796			
Orange (SC)	2027	MDV	Aggregate	Aggregate	Electricity	6724.905683	237227.8074	0	0		237227.8074			
Orange (SC)	2027	MDV	Aggregate	Aggregate	Plug-in Hybrid	4138.74125	186464.0296	2.943413089	2943.413089		186464.0296			
Orange (SC)	2027	MH	Aggregate	Aggregate	Gasoline	5494.773608	54533.35177	11.17103301	11171.03301	14060.61372	54533.35177	83871.18869	5.96	MH
Orange (SC)	2027	MH	Aggregate	Aggregate	Diesel	3015.208329	29337.83692	2.889580714	2889.580714		29337.83692			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Gasoline	6899.471297	343882.9475	65.46522009	65465.22009	195783.1543	343882.9475	1556010.717	7.95	MHDT
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Diesel	28843.00512	1162783.276	128.6922686	128692.2686		1162783.276			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Electricity	705.0961221	35495.33444	0	0		35495.33444			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Natural Gas	307.5844694	13849.15943	1.625665621	1625.665621		13849.15943			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Gasoline	799.5744215	32636.05253	6.073477703	6073.477703	11662.84371	32636.05253	76203.1847	6.53	OBUS
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Diesel	507.6740734	36839.88126	4.985973216	4985.973216		36839.88126			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Electricity	15.63862172	1154.463508	0	0		1154.463508			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Natural Gas	96.22385011	5572.787403	0.603392792	603.3927917		5572.787403			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Gasoline	695.8799126	31450.32858	3.497434635	3497.434635	10160.62178	31450.32858	67560.65176	6.65	SBUS
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Diesel	723.187469	14694.20454	1.969072882	1969.072882		14694.20454			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Electricity	31.29977754	956.1003922	0	0		956.1003922			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Natural Gas	836.1689696	20460.01826	4.69411426	4694.11426		20460.01826			
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Gasoline	257.3894016	42461.24538	3.256425155	3256.425155	40658.18848	42461.24538	154011.2305	3.79	UBUS
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Electricity	4.076617891	80.22081704	0	0		80.22081704			
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Natural Gas	579.9899791	111469.7643	37.40176332	37401.76332		111469.7643			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2028
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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Gasoline	5.168598081	541.7999038	0.118465212	118.4652123	224274.8191	541.7999038	1450247.335	6.47	HHDT
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Diesel	12073.80099	1319644.278	209.1315041	209131.5041		1319644.278			
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Electricity	359.8993539	36164.77257	0	0		36164.77257			
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Natural Gas	1544.334811	93896.48434	15.02484988	15024.84988		93896.48434			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Gasoline	1038995.892	41263326.11	1267.332722	1267332.722	1296400.171	41263326.11	47379966.54	36.55	LDA
Orange (SC)	2028	LDA	Aggregate	Aggregate	Diesel	2171.612574	64952.63275	1.453999491	1453.999491		64952.63275			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Electricity	92523.87745	4305755.793	0	0		4305755.793			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Plug-in Hybrid	39072.49176	1745931.998	27.61344894	27613.44894		1745931.998			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Gasoline	92684.36641	3313373.272	122.8528427	122852.8427	123171.3664	3313373.272	3361349.772	27.29	LDT1
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Diesel	6.507772921	106.1649511	0.004085085	4.085085265		106.1649511			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Electricity	546.4474323	26285.09612	0	0		26285.09612			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Plug-in Hybrid	430.0680074	21585.23805	0.314438615	314.4386154		21585.23805			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Gasoline	549816.574	22230739.4	833.9325083	833932.5083	841758.3575	22230739.4	22928056.41	27.24	LDT2
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Diesel	2199.451121	89167.78654	2.58662426	2586.62426		89167.78654			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Electricity	7541.699421	263248.3292	0	0		263248.3292			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Plug-in Hybrid	7280.311558	344900.8933	5.239224988	5239.224988		344900.8933			
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Gasoline	40643.11047	1631919.233	107.9106307	107910.6307	155608.1514	1631919.233	2777802.911	17.85	LHDT1
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Diesel	24055.01767	1007077.961	47.69752071	47697.52071		1007077.961			
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Electricity	2171.230816	138805.7173	0	0		138805.7173			
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Gasoline	6462.82446	240107.6	18.30522632	18305.22632	42946.77886	240107.6	716475.9052	16.68	LHDT2
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Diesel	10682.49761	441951.9889	24.64155253	24641.55253		441951.9889			
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Electricity	565.7731753	34416.31633	0	0		34416.31633			
Orange (SC)	2028	MCY	Aggregate	Aggregate	Gasoline	53242.81767	337881.2058	7.932212537	7932.212537	7932.212537	337881.2058	337881.2058	42.60	MCY
Orange (SC)	2028	MDV	Aggregate	Aggregate	Gasoline	329659.4277	12804464.08	591.2837782	591283.7782	601182.8853	12804464.08	13455242.27	22.38	MDV
Orange (SC)	2028	MDV	Aggregate	Aggregate	Diesel	4475.198106	171182.0914	6.681937063	6681.937063		171182.0914			
Orange (SC)	2028	MDV	Aggregate	Aggregate	Electricity	7844.227849	272931.8885	0	0		272931.8885			
Orange (SC)	2028	MDV	Aggregate	Aggregate	Plug-in Hybrid	4626.528268	206664.2109	3.217169978	3217.169978		206664.2109			
Orange (SC)	2028	MH	Aggregate	Aggregate	Gasoline	5341.240362	53472.45404	10.95233594	10952.33594	13828.49145	53472.45404	82664.58286	5.98	MH
Orange (SC)	2028	MH	Aggregate	Aggregate	Diesel	3021.622086	29192.12881	2.876155506	2876.155506		29192.12881			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Gasoline	6678.491886	324620.0907	61.40701597	61407.01597	190422.7833	324620.0907	1552065.751	8.15	MHDT
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Diesel	29046.88357	1155989.803	127.3536849	127353.6849		1155989.803			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Electricity	1140.526504	57294.20823	0	0		57294.20823			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Natural Gas	320.8747289	14161.64894	1.66208239	1662.08239		14161.64894			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Gasoline	782.1654895	31513.71967	5.807835831	5807.835831	11363.80085	31513.71967	75946.91173	6.68	OBUS
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Diesel	518.0754068	36995.55648	4.951135641	4951.135641		36995.55648			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Electricity	24.44236773	1790.777584	0	0		1790.777584			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Natural Gas	99.23244446	5646.857996	0.604829383	604.8293828		5646.857996			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Gasoline	700.6254389	31666.65086	3.510852764	3510.852764	10139.36152	31666.65086	67973.03038	6.70	SBUS
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Diesel	688.6435349	13991.01927	1.866988828	1866.988828		13991.01927			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Electricity	48.55751581	1491.992111	0	0		1491.992111			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Natural Gas	860.7431203	20823.36815	4.761519927	4761.519927		20823.36815			
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Gasoline	257.9047648	42546.43435	3.26298699	3262.98699	40597.29871	42546.43435	154320.2198	3.80	UBUS
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Electricity	1.844789609	95.88250074	0	0		95.88250074			
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Natural Gas	583.3946385	111677.9029	37.33431172	37334.31172		111677.9029			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2029
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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2029	HHDT	Aggregate	Aggregate	Gasoline	4.943091464	533.4895587	0.114806492	114.8064924	222613.1351	533.4895587	1475632.235	6.63	HHDT
Orange (SC)	2029	HHDT	Aggregate	Aggregate	Diesel	12191.4017	1327935.748	207.4294256	207429.4256		1327935.748			
Orange (SC)	2029	HHDT	Aggregate	Aggregate	Electricity	522.0698146	52092.53799	0	0		52092.53799			
Orange (SC)	2029	HHDT	Aggregate	Aggregate	Natural Gas	1577.881188	95070.45895	15.06890303	15068.90303		95070.45895			
Orange (SC)	2029	LDA	Aggregate	Aggregate	Gasoline	1034856.174	41149375.45	1241.885608	1241885.608	1271101.491	41149375.45	47511739.62	37.38	LDA
Orange (SC)	2029	LDA	Aggregate	Aggregate	Diesel	1925.877657	58348.44754	1.287785666	1287.785666		58348.44754			
Orange (SC)	2029	LDA	Aggregate	Aggregate	Electricity	98016.32358	4514188.416	0	0		4514188.416			
Orange (SC)	2029	LDA	Aggregate	Aggregate	Plug-in Hybrid	40493.97117	1789827.298	27.92809755	27928.09755		1789827.298			
Orange (SC)	2029	LDT1	Aggregate	Aggregate	Gasoline	91581.52842	3277866.345	119.5500421	119550.0421	119929.0718	3277866.345	3335991.324	27.82	LDT1
Orange (SC)	2029	LDT1	Aggregate	Aggregate	Diesel	2.902217211	55.85633946	0.002102861	2.102861236		55.85633946			
Orange (SC)	2029	LDT1	Aggregate	Aggregate	Electricity	662.9227227	32054.50283	0	0		32054.50283			
Orange (SC)	2029	LDT1	Aggregate	Aggregate	Plug-in Hybrid	524.2522056	26014.61978	0.376926794	376.9267944		26014.61978			
Orange (SC)	2029	LDT2	Aggregate	Aggregate	Gasoline	555722.2366	22415240.23	825.9977049	825997.7049	834245.8711	22415240.23	23187617.11	27.79	LDT2
Orange (SC)	2029	LDT2	Aggregate	Aggregate	Diesel	2216.820715	89349.39377	2.549871681	2549.871681		89349.39377			
Orange (SC)	2029	LDT2	Aggregate	Aggregate	Electricity	8828.976102	304521.1035	0	0		304521.1035			
Orange (SC)	2029	LDT2	Aggregate	Aggregate	Plug-in Hybrid	8103.093235	378506.3844	5.698294554	5698.294554		378506.3844			
Orange (SC)	2029	LHDT1	Aggregate	Aggregate	Gasoline	40268.54793	1609503.505	104.948662	104948.662	152774.5276	1609503.505	2820079.105	18.46	LHDT1
Orange (SC)	2029	LHDT1	Aggregate	Aggregate	Diesel	24434.47216	1013330.39	47.8258656	47825.8656		1013330.39			
Orange (SC)	2029	LHDT1	Aggregate	Aggregate	Electricity	3159.739873	197245.2106	0	0		197245.2106			
Orange (SC)	2029	LHDT2	Aggregate	Aggregate	Gasoline	6367.767391	235311.5961	17.70025781	17700.25781	42528.84558	235311.5961	731868.9851	17.21	LHDT2
Orange (SC)	2029	LHDT2	Aggregate	Aggregate	Diesel	10948.49634	447485.6852	24.82858777	24828.58777		447485.6852			
Orange (SC)	2029	LHDT2	Aggregate	Aggregate	Electricity	825.914217	49071.70376	0	0		49071.70376			
Orange (SC)	2029	MCY	Aggregate	Aggregate	Gasoline	53993.0701	341399.2508	7.997771221	7997.771221	7997.771221	341399.2508	341399.2508	42.69	MCY
Orange (SC)	2029	MDV	Aggregate	Aggregate	Gasoline	331005.2666	12853071.73	582.5334921	582533.4921	592485.7427	12853071.73	13556917.14	22.88	MDV
Orange (SC)	2029	MDV	Aggregate	Aggregate	Diesel	4422.111559	168242.7577	6.460445706	6460.445706		168242.7577			
Orange (SC)	2029	MDV	Aggregate	Aggregate	Electricity	8994.905126	308794.0816	0	0		308794.0816			
Orange (SC)	2029	MDV	Aggregate	Aggregate	Plug-in Hybrid	5123.004283	226808.5696	3.491804867	3491.804867		226808.5696			
Orange (SC)	2029	MH	Aggregate	Aggregate	Gasoline	5192.597132	52456.55971	10.74280936	10742.80936	13606.43917	52456.55971	81512.30079	5.99	MH
Orange (SC)	2029	MH	Aggregate	Aggregate	Diesel	3027.333223	29055.74108	2.863629808	2863.629808		29055.74108			
Orange (SC)	2029	MHDT	Aggregate	Aggregate	Gasoline	6434.040691	304742.1499	57.27871773	57278.71773	184224.1385	304742.1499	1548817.173	8.41	MHDT
Orange (SC)	2029	MHDT	Aggregate	Aggregate	Diesel	29061.59525	1142312.203	125.2548755	125254.8755		1142312.203			
Orange (SC)	2029	MHDT	Aggregate	Aggregate	Electricity	1742.62018	87359.31243	0	0		87359.31243			
Orange (SC)	2029	MHDT	Aggregate	Aggregate	Natural Gas	332.3158528	14403.50732	1.690545245	1690.545245		14403.50732			
Orange (SC)	2029	OBUS	Aggregate	Aggregate	Gasoline	761.1596295	30255.30829	5.525730761	5525.730761	11050.71234	30255.30829	75764.5532	6.86	OBUS
Orange (SC)	2029	OBUS	Aggregate	Aggregate	Diesel	526.8225109	37172.07412	4.920352281	4920.352281		37172.07412			
Orange (SC)	2029	OBUS	Aggregate	Aggregate	Electricity	36.31806959	2640.030273	0	0		2640.030273			
Orange (SC)	2029	OBUS	Aggregate	Aggregate	Natural Gas	101.5128518	5697.140521	0.604629293	604.6292926		5697.140521			
Orange (SC)	2029	SBUS	Aggregate	Aggregate	Gasoline	702.653337	31753.64333	3.510382783	3510.382783	10081.533	31753.64333	68321.20831	6.78	SBUS
Orange (SC)	2029	SBUS	Aggregate	Aggregate	Diesel	651.9418709	13265.18631	1.761992045	1761.992045		13265.18631			
Orange (SC)	2029	SBUS	Aggregate	Aggregate	Electricity	71.74051726	2213.73253	0	0		2213.73253			
Orange (SC)	2029	SBUS	Aggregate	Aggregate	Natural Gas	882.3732596	21088.64613	4.80915817	4809.15817		21088.64613			
Orange (SC)	2029	UBUS	Aggregate	Aggregate	Gasoline	258.4023617	42628.96157	3.268690854	3268.690854	40639.66862	42628.96157	154629.2091	3.80	UBUS
Orange (SC)	2029	UBUS	Aggregate	Aggregate	Electricity	5.944034594	327.053411	0	0		327.053411			
Orange (SC)	2029	UBUS	Aggregate	Aggregate	Natural Gas	580.4859911	111673.1941	37.37097777	37370.97777		111673.1941			

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