701 S. Myrtle

GREENHOUSE GAS ANALYSIS

CITY OF MONROVIA

PREPARED BY:

Haseeb Qureshi
hqureshi@urbanxroads.com

Shannon Wong
swong@urbanxroads.com

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
2017 Scoping Plan	*Final 2017 Scoping Plan Update*
2022 Scoping Plan	2022 Scoping Plan
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
Annex I	Industrialized Nations
AQIA	*701 S. Myrtle Air Quality Impact Analysis*
BAU	Business as Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	*2023 CEQA Statute and Guidelines*
CDFA	California Department of Food and Agriculture
CF_4	Tetrafluoromethane
CFC	Chlorofluorocarbons
CFC-113	Trichlorotrifluoroethane
CH_4	Methane
City	City of Monrovia
CNRA	California Natural Resources Agency
CNRA 2009	*2009 California Climate Adaptation Strategy*
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent

Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DWR	Department of Water Resources
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
gpd	Gallons Per Day
GWP	Global Warming Potential
H_2O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
IPCC	Intergovernmental Panel on Climate Change
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
kWh	Kilowatt Hours
lbs	Pounds
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MCA	Municipal Code Amendment
MCY	Motorcycles
MD	Medium Duty

MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Tucks
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
$MMTCO_2e/yr$	Million Metric Ton of Carbon Dioxide Equivalent Per Year
MT/yr	Metric Tons Per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
$MTCO_2e/yr$	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF_3	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrogen Oxides
Non-Annex I	Developing Nations
OAL	Office of Administrative Law
OPR	Office of Planning and Research
PFC	Perfluorocarbons
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	701 S. Myrtle
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
sf	Square Feet
SF_6	Sulfur Hexaflouride
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
TDM	Transportation Demand Measures
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States
UNFCCC	United Nations' Framework Convention on Climate Change
VMT	Vehicle Miles Traveled
WCI	Western Climate Initiative
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *701 S. Myrtle Greenhouse Gas Analysis* (GHGA) are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?	3.7	*Less Than Significant*	*n/a*
GHG Impact #2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	3.7	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations [CCR]). Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (8).

- Renewable Portfolio Standards (RPS) Required electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020. SB 350 mandated a 50% RPS by 2030. SB 100 increased the RPS requirements to 60% by 2030 with new interim targets of 44% by 2024 and 52% by 2027 (9).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (10).

Promulgated regulations that would affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, and are therefore accounted for in the Project's emission calculations.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the proposed 701 S. Myrtle (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

1.1 SITE LOCATION

The proposed Project is located on the southwest corner of Myrtle Avenue and Olive Avenue in the City of Monrovia, as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

It is our understanding that the Project requires demolition of 25,191[1] square feet (sf) of general commercial use to allow for the construction of one new five-story podium-style building on the 1.6-acre Project site, consisting of 204 multifamily residential units and 1.5 subterranean parking levels. The Project includes 7,622 sf of non-residential ground floor space, which includes 2,370 sf of commercial retail uses, a 2,782-sf fitness room, 1,080 sf of leasing office space, and a residential lobby and mail room comprising 1,390 sf. Development of the site also includes 19,205 sf of common use and open space areas for socializing and recreation including but not limited to a swimming pool on the podium level and a 2,537-sf rooftop clubhouse. Additionally, select units will be equipped with private open space areas, such as decks or balconies. A dog park will be located on the ground floor just outside the western end of the building. A preliminary site plan for the proposed Project is shown on Exhibit 1-B. The Project is anticipated to have an Opening Year of 2027.

Resident and visitor vehicle entry to the Project's ground floor and subterranean parking levels would be provided by one driveway located on the north side of the Project site with a proposed driveway along West Olive Avenue. A total of 323 parking spaces are planned inside the building and 6 spaces are planned in the alley south of the building, for a total of 329 proposed parking spaces. The parking spaces would be allocated as follows: 255 spaces for residents, 50 spaces for guests, 6 spaces for the leasing office, and 12 spaces for the ground floor commercial uses. Each residential unit would have designated parking.

[1] For analytical purposes, the demolition quantities were estimated based on the U.S. Environmental Protection Agency, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts, Report No. EPA530-R-09-002*, March 2009, Tables 3 and 4 which provide a standard factor of 155 pounds per square foot which equates to 1,950 tons (155 lbs/sf x 25,191 sf ÷ 2,000).

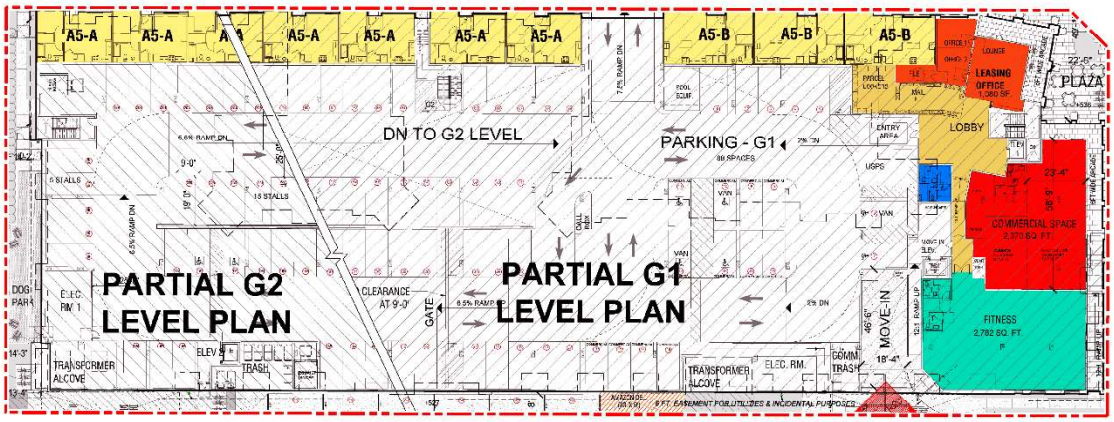
EXHIBIT 1-A: LOCATION MAP



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LEGEND:

EXHIBIT 1-B: PRELIMINARY SITE PLAN



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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE (GCC)

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3 will evaluate the potential for the Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were

not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop would continue is unknown as there are also dynamics that hold the positive	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it would eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (11).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (12).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (13).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period (14).
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in	CH_4 in the atmosphere is generated by many different sources,	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to

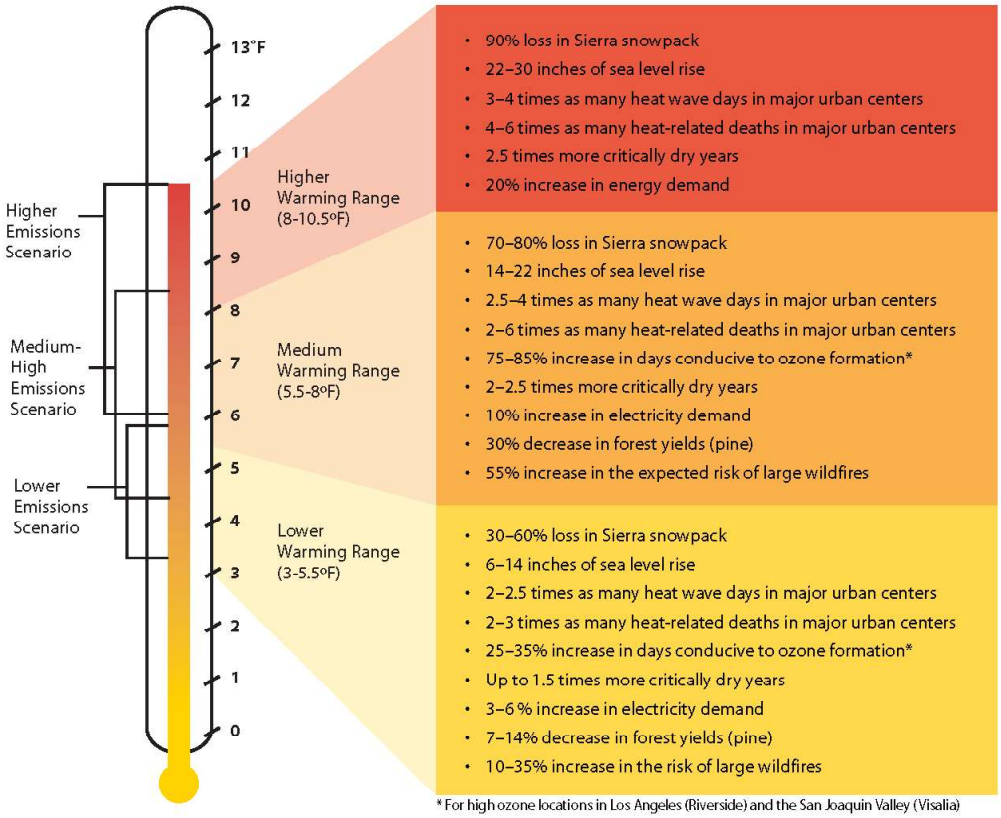
GHGs	Description	Sources	Health Effects
	the atmosphere is brief (10-12 years), compared to other GHGs.	such as fossil fuel production, transport and use, from the decay of organic matter in wetlands, and as a byproduct of digestion by ruminant animals such as cows. Determining which specific sources are responsible for variations in annual increases of CH_4 is complex, but scientists estimate that fossil fuel production and use contributes roughly 30% of the total CH_4 emissions. These industrial sources of CH_4 are relatively simple to pinpoint and control using current technology (15).	elevated levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (16).

GHGs	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (16).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source. They are found in aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants. (17).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.

GHGs	Description	Sources	Health Effects
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have exceptionally long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (18). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (19).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (20).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Climate change would likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (21). Exhibit 2-A presents the potential impacts of global warming (22).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 6th Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 25,200 for SF_6 (23).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime	GWP (100-year time horizon)
		6th Assessment Report
CO_2	Multiple	1
CH_4	11.8	28
N_2O	109	273
HFC-23	228	14,600
HFC-134a	14	1,526
HFC-152a	1.6	164
SF_6	3,200	25,200

Source: IPCC Second Assessment Report, 1995 and IPCC Sixth Assessment Report, 2022

2.5 GHG EMISSIONS INVENTORIES

2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2021. Based on the latest available data, the sum of these emissions totaled approximately 28,272,940 gigagram (Gg) CO_2e[2] (24) (25) as summarized on Table 2-3.

[2] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2021 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2016, respectively.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2021.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION

Emitting Countries	GHG Emissions (Gg CO_2e)
China	12,300,200
United States	6,340,228
European Union (27-member countries)	3,468,394
India	2,839,425
Russian Federation	2,156,599
Japan	1,168,094
Total	**28,272,940**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the United States (U.S.) emissions inventory total (16). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2024 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2022 GHG emissions period, California emitted an average 371.1 million metric tons of CO_2e per year ($MMTCO_2e/yr$) or 371,100 Gg CO_2e (6.01% of the total United States GHG emissions) (26). Based on data published by the U.S. Energy Information Administration, California is the second-largest total energy consumer among the states, after Texas, but its per capita energy consumption is the fourth-lowest in the nation (27).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on *Our Changing Climate Assessing the Risks to California by the California Climate Change Center*, large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced (28).

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a

significant increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

2.6.4 FORESTS AND LANDSCAPES

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

2.6.5 RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.7 REGULATORY SETTING

2.7.1 INTERNATIONAL

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the UNFCCC, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the UNFCCC. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the UN Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings gradually gained consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they would "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly would not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (29).

Following President Biden's day one executive order, the United States officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the country to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement and put the brakes on dangerous climate change.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Supreme Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned

decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (30).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if

accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (31). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2, 2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend existing Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (32). On December 21, 2021, after reviewing all the public comments submitted on NHTSA's April 2021 Notice of Proposed Rulemaking, NHTSA finalizes the CAFE Preemption rulemaking to withdraw its portions of the so-called SAFE I Rule. The final rule concludes that the SAFE I Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests. The final rule ensures that the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges (33).

On March 31, 2022, NHTSA finalized CAFE standards for MY 2024-2026. The standards for passenger cars and light trucks for MYs 2024-2025 were increased at a rate of 8% per year and then increased at a rate of 10% per year for MY 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in MY 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the agency's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources (34).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V

Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities would be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO_2 per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016, the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state-specific emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA's ACE Rule for GHG emissions from power plants rested on an erroneous interpretation of the CAA that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the ACE Rule and adopted a replacement rule which regulates CO_2 emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32 requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (35):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs would have to comply with the CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped

with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions, and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel would eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

EXECUTIVE ORDER 13990

On January 20, 2021, Federal agencies were directed to immediately review, and take action to address, Federal regulations promulgated and other actions taken during the last 4 years that conflict with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce GHG emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

2.7.3 CALIFORNIA

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

AB 1881

The Water Conservation in Landscaping Act of 2006 requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

SB 1368

California SB 1368 adds Sections 8340 and 8341 to the Public Utilities Code (effective January 1, 2007) with the intent "to prevent long-term investments in power plants with GHG emissions in excess of those produced by a combined-cycle natural gas power plant" with the aim of "reducing emissions of GHGs from the state's electricity consumption, not just the state's electricity production." SB 1368 provides a mechanism for reducing the GHG emissions of electricity providers, both in-state and out-of-state, thereby assisting CARB in meeting its mandate under AB 32, the Global Warming Solutions Act of 2006.

AB 32

The California State Legislature enacted AB 32, which required that GHGs emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met[3]). GHGs as defined under AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, NF_3, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

SB 375

On September 30, 2008, SB 375 was signed by Governor Schwarzenegger. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California would not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations (MPOs) to include sustainable community strategies in their

[3] Based upon the 2023 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2021 GHG emissions period, California emitted an average 381.3 $MMTCO_2e$ (26). This is less than the 2020 emissions target of 431 $MMTCO_2e$. This is less than the 2020 emissions target of 431 $MMTCO_2e$.

regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 requires MPOs to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the MMs required by an applicable prior environmental document.

AB 1493 - Pavley Fuel Efficiency Standards

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars (ACC) program. The ACC program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for MY 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EV and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California. On March 9, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards for cars and light trucks, which other states can also adopt and enforce. With this authority restored, EPA will continue partnering with states to advance the next generation of clean vehicle technologies.

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

In October 2015, the legislature approved, and Governor Jerry Brown signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. 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 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target would be achieved through the California Public Utilities 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 would facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (10).

2017 CARB SCOPING PLAN

In November 2017, CARB released the *Final 2017 Scoping Plan Update* (*2017 Scoping Plan*), which identifies the State's post-2020 reduction strategy. The *2017 Scoping Plan* reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The *2017 Scoping Plan* establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (36).

California's climate strategy would require contributions from all sectors of the economy, including the land base, and would include enhanced focus on zero and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries would further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *2017 Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission vehicles (ZEV) buses and trucks.

- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the *2017 Scoping Plan* acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the *2017 Scoping Plan* also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidence-based bright-line numeric thresholds—consistent with the *2017 Scoping Plan* and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and MMs that avoid or minimize project emissions to the degree feasible; or a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$ per year ($MTCO_2e$/yr), indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions

would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (37) (38).

2022 CARB SCOPING PLAN

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) (39). The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to "deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor." The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary:

> "The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California's single largest source of planet-warming pollution."
>
> "[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies."

Under the 2022 Scoping Plan, the State will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:

- Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.
- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.
- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.

- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle (AV) VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.
- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

Additionally on Page 21 in Appendix D, CARB states: "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future." As such, it would be inappropriate to apply the recommendations contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

CAP-AND-TRADE PROGRAM

The *2022 Scoping Plan* identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program would help put California on the path to meet its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap would be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and would decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year (40).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the *First Update to the Climate Change Scoping Plan*:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative."* (41)

The Cap-and-Trade Program covers approximately 80% of California's GHG emissions (36). The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

EXECUTIVE ORDER S-01-07 (LCFS)

Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. CARB adopted the LCFS on April 23, 2009.

After a series of legal changes, in order to address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. On November 16, 2015, the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle

adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (42).

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the *2009 California Climate Adaptation Strategy* (*CNRA 2009*) was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Brown issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligned California's GHG reduction targets with those of leading international governments ahead of the U.N. Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the *2017 Scoping Plan* to express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable as to local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

EXECUTIVE ORDER B-55-18 AND SB 100

SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales of electricity are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California EPA (CalEPA), the California Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR SECTIONS 1601 ET SEQ. – APPLIANCE EFFICIENCY REGULATIONS

The Appliance Efficiency Regulations regulate the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles (RV) or other mobile equipment (CEC 2012).

TITLE 24 CCR PART 6 – CALIFORNIA ENERGY CODE

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.

TITLE 24 CCR PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE

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

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

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (43). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made.

CARB REFRIGERANT MANAGEMENT PROGRAM

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant

management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

TRACTOR-TRAILER GHG REGULATION

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors MY 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

PHASE I AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS

In September 2011, CARB has adopted a regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing HD vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements began with MY 2014 with stringency levels increasing through MY 2018. The rule organizes truck compliance into three groupings, which include a) HD pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later MY HDT vehicles, including trailers. The EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

SB 97 AND THE CEQA GUIDELINES UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the

Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)."

In 2012, Public Resources Code Section 21083.05 was amended to state:

> *"The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code."*

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 15064.4 was added the *CEQA Guidelines* and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively insignificant compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (44).

2.7.4 REGIONAL

The project is within the SCAB, which is under the jurisdiction of the SCAQMD.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, which could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15 which occurred on September 28, 2010 focused on refining methodologies for assessing GHG emissions in CEQA reviews. These minutes are attached in Appendix 2.1 for further reference. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - Residential and commercial land use: 3,000 $MTCO_2e/yr$
    - Industrial land use: 10,000 $MTCO_2e/yr$
    - Based on land use type: residential: 3,500 $MTCO_2e/yr$; commercial: 1,400 $MTCO_2e/yr$; or mixed use: 3,000 $MTCO_2e/yr$
- Tier 4 has the following options:
    - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$ per SP per year for projects and 6.6 $MTCO_2e$ per SP per year for plans;
    - Option 3, 2035 target: 3.0 $MTCO_2e$ per SP per year for projects and 4.1 $MTCO_2e$ per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD would fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

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3 PROJECT GHG IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (45):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." For establishing significance thresholds, the Office of Planning and Research's amendments to the CEQA Guidelines Section 15064.7(c) state "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

CEQA Guidelines Section 15064.4(a) further states, ". . . A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance-based standards."

CEQA Guidelines Section 15064.4 provides that a lead agency should consider the following factors, among others, in assessing the significance of impacts from greenhouse gas emissions:

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies

address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

3.2.1 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

The City of Monrovia has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. A screening threshold of 3,000 $MTCO_2e$/yr to determine if additional analysis is required is an acceptable approach for small projects such as the proposed Project. This approach is a widely accepted screening threshold used by the City of Monrovia and numerous cities in the South Coast Air Basin (SCAB) and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans ("SCAQMD Interim GHG Threshold"). The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required (46). As noted by the SCAQMD:

> *"…the…screening level for stationary sources is based on an emission capture rate of 90% for all new or modified projects...the policy objective of [SCAQMD's] recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90% of all new or modified stationary source projects. A GHG significance threshold based on a 90% emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90% emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that [SCAQMD] staff estimates that these GHG emissions would account for slightly less than 1% of future 2050 statewide GHG emissions target (85 [MMTCO2e/yr]). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to [Best Available Control Technology] (BACT) for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility."* (47)

Thus, and based on guidance from the SCAQMD, if a non-industrial project would emit GHGs less than 3,000 $MTCO_2e$/yr, the project is not considered a substantial GHG emitter and the GHG impact is less than significant, requiring no additional analysis and no mitigation. On the other hand, if a non-industrial project would emit GHGs in excess of 3,000 $MTCO_2e$/yr, then the project could be considered a substantial GHG emitter, requiring additional analysis and potential mitigation. As previously discussed, a screening threshold of 3,000 $MTCO_2e$/yr is an acceptable approach for small projects to determine if additional analysis is required and is therefore applied for this Project.

3.3 MODELS EMPLOYED TO ANALYZE GHGS

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

In August 2023, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the SCAQMD, released the latest version of CalEEMod, version 2022.1.1.22. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (48). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 through 3.2. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water and refrigerants.

3.4 LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (49). Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure, and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood, or documented, and would be challenging to mitigate (50). Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Project construction actvities would generate CO_2 and CH_4 emissions. The *701 S. Myrtle Air Quality Impact Analysis* (AQIA) report contains detailed information regarding Project construction activities (51). As discussed in the AQIA, construction-related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

3.5.1 CONSTRUCTION DURATION

For purposes of analysis, construction of the Project is expected to commence in March 2025 and would last through January 2027. The construction schedule utilized in the analysis, shown in Table 3-1, represents a "conservative" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent[4]. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (45).

TABLE 3-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Demolition	3/3/2025	4/18/2025	35
Site Preparation	4/21/2025	7/25/2025	70
Grading	7/28/2025	9/26/2025	45
Building Construction	9/29/2025	3/20/2026	125
Paving	3/23/2026	11/13/2026	170
Architectural Coating	11/16/2026	1/22/2027	50

3.5.2 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-2 would 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 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment[1]	Amount	Hours Per Day[2]
Demolition	Rubber Tired Dozers	1	2
	Concrete/Industrial Saws	1	8
	Tractors/Loaders/Backhoes	1	8
	Rubber Tired Dozers	1	8
Site Preparation	Crawler Tractors	1	8
Grading	Graders	1	8
	Crawler Tractors	1	8
	Rubber Tired Dozers	1	8

[4] As shown in the CalEEMod User's Guide Version 2022, Appendix G "Table G-11. Statewide Average Annual Offoad Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Construction Activity	Equipment[1]	Amount	Hours Per Day[2]
Building Construction	Forklifts	1	8
	Cranes	1	8
Paving	Pavers	1	8
	Rollers	1	8
Architectural Coating	Air Compressors	1	1

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

[2] It should be noted that per client provided data, the rubber-tired dozers during demolition will operate 2 hours per day and the air compressors during architectural coating will operate 1 hour per day.

3.5.3 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions (52). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-3.

TABLE 3-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e[5]
2025	440.03	0.02	0.03	0.45	448.73
2026	257.53	0.01	0.01	0.28	261.80
2027	4.72	0.00	0.00	0.01	4.80
Total GHG Emissions	702.28	0.03	0.04	0.73	715.33
Amortized Construction Emissions	**23.41**	**0.00**	**0.00**	**0.02**	**23.84**

Source: CalEEMod annual construction-source emissions are presented in Appendix 3.1.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of CO_2, CH_4, N_2O and Refrigerants from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

[5] CalEEMod reports the most common GHGs emitted which include CO_2, CH_4, N_2O and Refrigerants. These GHGs are then converted into the CO_2e by multiplying the individual GHG by the GWP.

- Water Supply, Treatment, and Distribution
- Solid Waste
- Refrigerants

3.6.1 Area Source Emissions

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that on October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by January 1, 2024, which is now effective. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod (i.e., that the landscape equipment would be gas powered).

3.6.2 Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Electricity and natural gas usage associated with the Project were calculated by CalEEMod using default parameters.

3.6.3 Mobile Source Emissions

The Project related GHG emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *701 S. Myrtle Traffic Impact Analysis Report* were utilized in this analysis (53).

3.6.4 Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

3.6.5 Solid Waste

The proposed land uses would result in the generation and disposal of solid waste. A percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted

would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters.

3.6.6 REFRIGERANTS

Air conditioning (A/C) and refrigeration equipment associated with the buildings are anticipated to generate GHG emissions. CalEEMod automatically generates a default A/C and refrigeration equipment inventory for each project land use subtype based on industry data from the USEPA (2016b). CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime. Per 17 CCR 95371, new facilities with refrigeration equipment containing more than 50 pounds of refrigerant are prohibited from utilizing refrigerants with a GWP of 150 or greater as of January 1, 2022. Additionally, beginning January 1, 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater. GHG emissions associated with refrigerants were calculated by CalEEMod using default parameters.

3.6.7 EMISSIONS SUMMARY

EXISTING EMISSIONS

As previously stated, the Project site is currently occupied by approximately 25,191 square feet of office use within the Myrtle and Olive Business Park. The existing emissions were calculated based on the Traffic Analysis for mobile sources, client provided data for energy, water, and solid waste demands and CalEEMod defaults for the remaining parameters. The estimated GHG emissions from the existing development are summarized on Table 3-4. Detailed operational model outputs for the existing use are presented in Appendix 3.2.

TABLE 3-4: EMISSIONS FROM EXISTING DEVELOPMENT

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e
Mobile Source	570.81	0.03	0.04	0.83	585.29
Area Source	0.51	0.00	0.00	0.00	0.51
Energy Source	40.66	0.00	0.00	0.00	40.82
Water Usage	1.50	0.04	0.00	0.00	2.63
Waste	27.85	2.78	0.00	0.00	97.44
Refrigerants	0.00	0.00	0.00	0.01	0.01
Total Existing CO_2e (All Sources)	**726.69**				

Source: CalEEMod output, See Appendix 3.2 for detailed model outputs.

PROPOSED PROJECT EMISSIONS

The estimated Project-related GHG emissions are summarized on Table 3-5. Detailed operation model outputs for the Project are presented in Appendix 3.2. As shown in Table 3-5, construction and operation of the Project would generate a net increase of approximately 1,283.83 $MTCO_2e$/yr.

TABLE 3-5: PROJECT GHG EMISSIONS

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	Refrigerants	Total CO_2e
Annual construction-related emissions amortized over 30 years	23.41	1.05E-03	1.29E-03	2.43E-02	23.84
Mobile Source	1,595.65	0.07	0.06	2.18	1,619.05
Area Source	54.90	0.00	0.00	0.00	54.97
Energy Source	236.00	0.02	< 0.005	0.00	237.00
Water Usage	11.95	0.27	0.01	0.00	20.79
Waste	15.63	1.56	0.00	0.00	54.69
Refrigerants	0.00	0.00	0.00	0.18	0.18
Total CO_2e (All Sources)	**2,010.52**				
Existing	*726.69*				
Total Net CO_2e (All Sources)	**1,283.83**				

Source: CalEEMod output, See Appendix 3.1 for detailed model outputs.

3.7 GHG EMISSIONS FINDINGS AND RECOMMENDATIONS

3.7.1 GHG IMPACT 1

Potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.

The City of Monrovia has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. A screening threshold of 3,000 $MTCO_2e$/yr to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the City of Monrovia and numerous cities in the SCAB and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* ("SCAQMD Interim GHG Threshold"). The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required (47).

The Project will result in a net increase of approximately 1,283.83 $MTCO_2e$/yr as shown on Table 3-5. As such, the Project would not exceed the SCAQMD's recommended numeric threshold of 3,000 $MTCO_2e$/yr if it were applied. As such, project-related emissions would have a less than

significant direct or indirect impact on GHG and climate change, and no mitigation measures are required.

3.7.2 GHG IMPACT 2

Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

As previously stated, pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (44). As such, the Project's consistency with the 2022 Scoping Plan, is discussed below. It should be noted that the Project's consistency with the 2022 Scoping Plan also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32. Consistency with the 2008 and 2017 Scoping Plan is not necessary since both of these plans have been superseded by the 2022 Scoping Plan. For reasons outlined herein, the proposed Project would result in a less than significant impact with respect to GHG emissions for GHG Impact #1 and GHG Impact #2.

CITY OF MONROVIA ENERGY ACTION PLAN (EAP) CONSISTENCY

The City of Monrovia Energy Action Plan (EAP) demonstrates the City of Monrovia's commitment to pursue energy efficiency and reduce greenhouse gas emissions as expressed in the City's Environmental Accords. The plan suggests the need for citizen involvement and focuses heavily on actionable items related to managing City facilities and vehicles. The EAP includes a number of policies, which generally encourage the City to engage in public outreach to provide information to the public regarding energy efficiency and energy efficiency programs; identifies recommendations related to the retrofitting of existing buildings to improve energy efficiency; and provides direction to City staff and decision makers. The EAP establishes a target to achieve a 15% reduction in energy consumption in comparison to 2007 energy consumption levels by 2020. It is important to note that the EAP was prepared in September 2012, and addressed the City's level of energy efficiency at that time. Since the EAP was adopted in 2012, the State has enacted a total of four updates to the Title 24 Building Energy Standards, with the most recent updates having gone into effect on January 1, 2023. Each update to the Title 24 requirements imposed more stringent energy efficiency requirements. For example, the 2016 version of the Title 24 requirements were 28 percent more efficient for residential construction and 5 percent more efficient for nonresidential construction than the 2013 Building Energy Efficiency Standards they replaced, while the 2019 version of Title 24 was 7 percent more efficient than the 2016 Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for non-residential construction. The Project would be consistent with the 2022 version of the Title 24 building codes (or the current version of Title 24 that would be in effect at the time of issuance of building permits). Mandatory compliance with the applicable version of the Title 24 building code requirements would ensure that the Project exceeds the EAP's reduction target to achieve a 20% reduction in electricity consumption below 2007 levels by 2020, and therefore the Project would be consistent with the goals of the Energy Action Plan.

CITY OF MONROVIA 2007 ENVIRONMENTAL ACCORDS CONSISTENCY

In 2007, the City of Monrovia City Council adopted several Environmental Accord Goals. As indicated in Table 3-6, Table 3-6: Project Consistency with City of Monrovia 2007 Environmental Accords, the Project would be consistent with or otherwise would not conflict with the City's 2007 Environmental Accord Goals, and impacts would therefore be less than significant.

TABLE 3-6: PROJECT CONSISTENCY WITH CITY OF MONROVIA 2007 ENVIRONMENTAL ACCORDS

Environmental Accord Goals	Project Consistency
Energy	
Increase the use of renewable energy to meet 10% of the city's peak electric load by 2015.	Consistent. Pursuant to the 2022 version of Title 24, the Project would be required to accommodate photovoltaic (PV) systems to generate on-site renewable energy equal to approximately 80% of the building's annual energy demand without battery storage, and approximately 90% of the buildings energy demand with battery storage. Compliance with the incumbent version of Title 24 would ensure that the Project's energy demand primarily is met through renewable energy.
Reduce the city's peak electric load by 10% within seven years.	Consistent. As noted above, pursuant to the 2022 version of Title 24, the Project would be required to accommodate photovoltaic (PV) systems to generate on-site renewable energy equal to approximately 80% of the building's annual energy demand without battery storage, and approximately 90% of the buildings energy demand with battery storage. Compliance with the incumbent version of Title 24 would ensure that the Project assists the City in achieving a reduction in the City's peak electric load.
Reduce the community's greenhouse emissions by 25% by 2030.	Consistent. The City's Environmental Accord goals and policies were adopted by the City in 2007. According to information available from CARB, in 2007 Statewide emissions of GHGs were approximately 483 million tonnes of CO_2e per year, and Statewide emissions in 2022 were reduced to approximately 371.1 million tonnes of CO_2e per year (54). Thus, between 2007 and 2020, Statewide GHG emissions were reduced by approximately 23.2%. The Project would be subject to compliance with the incumbent Title 24 regulations, which would ensure that the Project would assist both the City and State in achieving the target reductions in GHG emissions by 2030. Furthermore, as demonstrated by the analysis provided for Threshold a., above, because the Project would emit fewer than 3,000 $MTCO_2e$/yr of GHG emissions, the Project would

Environmental Accord Goals	Project Consistency
	not inhibit the State's or the City's ability to achieve the GHG reduction targets established for 2030.
Waste Reduction	
Achieve a 75% diversion of waste going to landfills by 2015.	Consistent. The Project would be required to comply with mandatory waste reduction requirements of the California Integrated Waste Management Act (AB 939), the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code Section 42911), and Chapter 8.08 (Residential Solid Waste, Green Waste and Recyclable Materials Collection) of the City of Monrovia Municipal Code. The Project Applicant also would be required to prepare and implement a City-approved Waste Management Plan pursuant to Chapter 8.09 of the City's Municipal Code, which would ensure that solid waste generated during the Project construction phase is not excessive. There are no components of the proposed Project that would inhibit the City's ability to achieve a 75% diversion rate from area landfills.
Reduce the use of disposable, toxic or non-renewable products by at least 50% by 2015.	Consistent. The Project includes residential and commercial retail land uses, which are not associated with the use or disposal of toxic substances, and there are no components of the Project that would inhibit the City's ability to reduce non-renewable products by 50%.
Implement user-friendly recycling and composting programs and reduce solid waste per capita by 20% by 2015.	Not Applicable. This goal provides direction to City staff and decision makers, and is not applicable to the Project. There are no components of the Project that would inhibit the City's ability to implement recycling and composting programs to achieve the 20% reduction in per capita solid waste use.
Urban Design	
Establish a green building standard for all new municipal buildings.	Not Applicable. This goal provides direction to City staff and decision makers and relates to municipal buildings, which are not proposed as part of the Project.
Advance higher density, mixed use, walk-able, bike-able and disabled-accessible neighborhoods and coordinate both land use and transportation with open space for recreation and ecological restoration..	Consistent. The Project comprises a proposed residential and commercial mixed-use building that would be located within an existing walkable and bike-able community that also affords access for disabled persons, and the Project Applicant would be required

Environmental Accord Goals	Project Consistency
	to pay the City's Dwelling Unit Tax pursuant to Chapter 3.32 of the City's Municipal Code, a portion of which may be used to provide for recreational amenities within the City.
Create environmentally-friendly jobs throughout the community	Not Applicable. This goal provides direction to City staff and decision makers, and there are no components of the Project that would inhibit the City's ability to promote the creation of environmentally-friendly jobs throughout the community.
Urban Nature	
Ensure that there are accessible public parks, trails or recreation open space within a half-mile of every city resident by 2015.	Consistent. The Project includes various recreational facilities and amenities for the residents, including a resort-style pool, rooftop deck, dog park, courtyard gathering areas, and an outdoor public plaza. The Project Applicant would be required to pay the City's Dwelling Unit Tax pursuant to Chapter 3.32 of the City's Municipal Code, a portion of which may be used to provide for recreational amenities within the City. Additionally, and as discussed in EIR subsection 4.12.1, there are four (4) existing parks located within 0.5-mile of the Project site. Thus, the Project would be served by recreational amenities within a half-mile of the Project site.
Plant and maintain the community's tree canopy in not less than 50% of all available sidewalk planting sites.	Consistent. The Project includes a Conceptual Landscape Plan that would require that existing non-protected ornamental street trees would be removed along the Project site's frontage along West Olive Avenue, and new trees and landscaping would be planted to provide enhanced landscaping as part of the Project in conformance with Municipal Code Chapter 17.20, Landscaping/Tree Preservation.
Protect critical habitat corridors, resources and shelter from unsustainable development.	Not Applicable. The Project Site is located within a fully developed portion of the City of Monrovia and is not located within or near any critical habitat corridors or resources.
Transportation	
Expand affordable public transportation to within a quarter-mile of all city residents within 10 years.	Not Applicable. Although the Project site is located approximately 230 feet from the nearest bus stop, this goal provides direction to City staff and decision makers and is not applicable to the proposed Project.

Environmental Accord Goals	Project Consistency
Phase down sulfur emissions in diesel and gasoline fuels by 50% concurrent with using advanced emission controls on all buses, taxis and public fleets to reduce particulate matter and smog-forming emissions by an additional 50% by 2015.	Not Applicable. This goal relates to sulfur emissions from buses, taxis, and public vehicle fleets, none of which are proposed as part of the Project.
Reduce the percentage of commuting trips in single-occupancy vehicles by 10% by 2015.	Consistent. The Project site is located approximately 230 feet northeast of the nearest bus stop, which would encourage the use of transit by Project residents and would assist the City in meeting a reduction of single-occupancy vehicles by 10%.
Environmental Health	
Annually identify one product, chemical or compound that is used within the city (with a focus on areas used by children and youth) that represents a risk to human health, and reduce or eliminate its use by the municipal government.	Not Applicable. This goal provides direction to City staff and decision makers, and is not applicable to the proposed Project.
Promote wellness and fitness when planning or redesigning city facilities.	Not Applicable. This goal relates to City-owned facilities, and the Project does not include any proposed City-owned facilities.
Water	
Reduce per capita water demand by 10% by 2015 and 35% by 2030.	Consistent. The Project would be subject to the incumbent Title 24 regulations and City of Monrovia Municipal Code Chapter 13.20, *Water Conservation*. Compliance with the Title 24 regulations and Chapter 13.20 would ensure that the Project achieves the City's goal to reduce water demand by 35% compared to 2007 levels by 2030.
Protect the ecological integrity of the city's primary drinking water sources.	Not Applicable. This goal provides direction to City staff and decision makers, and there are no components of the proposed Project that would affect the ecological integrity of the City's primary drinking water sources.
Reduce the volume of untreated wastewater discharges by 10% by 2015.	Not Applicable. This goal provides direction to City staff and decision makers, and is not applicable to the proposed Project. All wastewater generated by the Project would be conveyed to the San Jose Creek Water Reclamation Plant for treatment, and there are no components of the Project that would result in

Environmental Accord Goals	Project Consistency
	untreated wastewater discharges.
Increase groundwater recharge by 5% by 2020.	Not Applicable. This goal provides direction to City staff and decision makers, and there are no components of the Project with the potential to inhibit the City's ability to meet this goal. The Project site is not located within a groundwater recharge area.

2020-2045 RTP/SCS CONSISTENCY

On September 3, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also referred to as "Connect SoCal." Although the 2020-2045 RTP/SCS has been superseded by SCAG's 2024-2050 RTP/SCS (which is discussed separately below), CARB still is working with SCAG to make refinements to the RTP/SCS discussion of GHGs. As such, an analysis of the Project's consistency with the 2020-2045 RTP/SCS is provided herein for disclosure purposes. As indicated in Table 3-7, the Project would not conflict with any of the 2020-2045 RTP/SCS goals; therefore, no impact would occur due to an inconsistency with the 2020-2045 RTP/SCS.

TABLE 3-7: ANALYSIS OF CONSISTENCY WITH CONNECT SOCAL GOALS

Goal	Goal Statement	Project Consistency Discussion
1.	Encourage regional economic prosperity and global competitiveness.	**Consistent.** This policy would be implemented by the cities and counties within the SCAG region as part of comprehensive local and regional planning efforts. The Project would support this goal by providing employment-generating land uses (i.e., commercial retail uses) in close proximity to existing residential uses.
2.	Improve mobility, accessibility, reliability, and travel safety for people and goods.	**Consistent.** The Project's TA (EIR *Technical Appendix J*) identifies required transportation facility improvements, fee payments, and fair-share contributions. Mandatory compliance with the recommendations of the Project's TA, as would be required as conditions of Project approval, would ensure that the Project does not degrade mobility, accessibility, reliability, or travel safety for people and goods.
3.	Enhance the preservation, security, and resilience of the regional transportation system.	**Consistent.** This policy would be implemented by the cities and counties within the SCAG region as part of comprehensive local and regional planning efforts. There are no components of the Project that would adversely affect the preservation, security, or resilience of the regional transportation system, and the Project Applicant would contribute fees towards regional improvements required in the Project vicinity.

TABLE 3-7: ANALYSIS OF CONSISTENCY WITH CONNECT SOCAL GOALS

Goal	Goal Statement	Project Consistency Discussion
4.	Increase person and goods movement and travel choices within the transportation system.	**Consistent.** This policy would be implemented by the cities and counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would expand facilities for goods movement in the local area, and would construct or contribute fees towards regional transportation improvements. Additionally, the intensity of the Project would facilitate expanded transit service in the local area.
5.	Reduce greenhouse gas emissions and improve air quality.	**Consistent.** This policy would be implemented by the cities and counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would entail development of a mixed-use building within close proximity to existing transit service; thus, the Project would serve to reduce worker commute times in the local area by locating residential uses in close proximity to public transit, and by co-locating commercial retail and residential uses within the same building. Furthermore, the analysis presented in EIR Subsections 4.2, *Air Quality*, and this Subsection 4.6 demonstrate that the Project's impacts due to GHG and air quality emissions would be less than significant, in conformance with this Goal.
6.	Support healthy and equitable communities.	**Consistent.** An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, *Air Quality*, which demonstrates that the Project's impacts due to air quality emissions would be less than significant. Additionally, the Project would include a number of recreational amenities on site, including 19,205 s.f. of outdoor common open space, including a dog park, outdoor plaza, pool, and club house, which would help meet the recreational demands of future Project residents. Furthermore, the intensity of the Project would help support future expansion of transit routes in the local area. Additionally, the Project would be consistent with or otherwise would not conflict with any applicable General Plan policies or requirements. Thus, the Project would facilitate the establishment of healthy and equitable communities.
7.	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**Consistent.** This policy would be implemented by the cities and counties within the SCAG region as part of comprehensive transportation planning efforts. As indicated in the analysis presented in this Subsection, the Project's impacts due to GHG

TABLE 3-7: ANALYSIS OF CONSISTENCY WITH CONNECT SOCAL GOALS

Goal	Goal Statement	Project Consistency Discussion
		emissions would be less than significant, thereby demonstrating that the Project would not inhibit the City's ability to meet its greenhouse gas reduction targets. The Project also would be conditioned to construct transportation improvements and/or contribute fees towards improving the regional transportation network.
8.	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**Not Applicable.** This policy provides guidance to the City to leverage new transportation technologies and data-driven solutions that result in more efficient travel. There are no components of the Project that would preclude the City's ability to implement this goal.
9.	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**Not Applicable.** This policy would be implemented by the cities and counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would accommodate up to 204 high-density dwelling units, which would expand the range of housing available within the City and Project vicinity.
10.	Promote conservation of natural and agricultural lands and restoration of habitats.	**Not Applicable.** The Project is located in a portion of the City of Monrovia that is fully developed with urban uses, and there are no natural lands, agricultural lands, or biological habitat within the Project vicinity. There are no components of the Project that would conflict with this goal.

2024-2050 RTP/SCS CONSISTENCY

The 2024-2050 RTP/SCS, developed with input from local governments, including the City of Monrovia, establishes GHG emissions goals for automobiles and light-duty trucks establishes an overall GHG target for the region consistent with both the statewide GHG-reduction targets for statewide GHG reduction goals. The 2024-2050 RTP/SCS is a long-range visioning plan to encourage and promote the safe and efficient management, operation, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people. Future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently.

Table 3-8 summarizes the Projects consistency with strategies found within the SCAG's 2024-2050 RTP/SCS and as shown, the Project would be consistent with the strategies contained within

the SCAG's RTP/SCS. Implementing SCAG's RTP/SCS will reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. The proposed Project would be consistent with and would not conflict with the goals of the RTP/SCS; therefore, the proposed Project would not interfere with SCAG's ability to achieve the region's mobile source GHG reduction targets outlined in the RTP/SCS, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS.

TABLE 3-8: CONSISTENCY WITH SCAG'S 2024-2050 RTP/SCS

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
Mobility	
System Preservation and Resilience	
01. Prioritize repair, maintenance and preservation of the SCAG region's existing transportation assets, following a "Fix-It-First" principle	Not Applicable. RTP/SCS Policy 01 provides direction to City and regional staff and decision makers, and is not applicable to the proposed Project.
02. Promote transportation investments that advance progress toward the achievement of asset management targets, including the condition of the National Highway System pavement and bridges and transit assets (rolling stock, equipment, facilities and infrastructure)	Not Applicable. RTP/SCS Policy 02 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Complete Streets	
03. Pursue the development of Complete Streets that comprise a safe, multimodal network with flexible use of public rights-of-way for people of all ages and abilities using a variety of modes (e.g., people walking, biking, rolling, driving, taking transit)	Consistent. Under existing conditions, there are sidewalks along the Project site's frontages with West Olive Avenue and South Myrtle Avenue, and a Class III Bikeway along the Project site's frontage with West Olive Avenue. The sidewalks and Class III Bikeway would be retained as part of the Project and would be enhanced with landscaping on-site at the back edge of the sidewalks.
04. Ensure the implementation of Complete Streets that are sensitive to urban, suburban or rural contexts and improve transportation safety for all, but especially for vulnerable road users (e.g., people, especially older adults and children, walking and biking)	Not Applicable. RTP/SCS Policy 04 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
05. Facilitate the implementation of Complete Streets and curb space management strategies that accommodate and optimize new technologies, micromobility devices and first/last mile connections to transit and last-mile delivery	Not Applicable. RTP/SCS Policy 05 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, the Project would not affect any existing connections to transit in the local area.

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06. Support implementation of Complete Streets improvements in Priority Equity Communities, particularly with respect to Transportation Equity Zones, as a way to enhance mobility, safety and access to opportunities	Not Applicable. RTP/SCS Policy 06 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Transit and Multimodal Integration	
07. Encourage and support the implementation of projects, both physical and digital, that facilitate multimodal connectivity, prioritize transit and shared mobility, and result in improved mobility, accessibility and safety	Not Applicable. RTP/SCS Policy 07 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
08. Support connections across the public, private and nonprofit sectors to develop transportation projects and programs that result in improved connectivity	Not Applicable. RTP/SCS Policy 08 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
09. Encourage residential and employment development in areas surrounding existing and planned transit/rail stations	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses, and the Project site is located in close proximity to public transit. Specifically, Foothill Transit Line 270 runs along South Primrose Avenue, with the nearest bus stops occurring at the intersection of South Primrose Avenue and West Walnut Avenue, approximately 230 feet southwest of the Project site. In addition, the Project site is within walking to the Metro Gold Line Monrovia light rail station, located approximately 0.7-mile south of the Project site.
10. Support the implementation of transportation projects in Priority Equity Communities, particularly with respect to Transportation Equity Zones, as a way to enhance mobility, safety and access to opportunities	Not Applicable. RTP/SCS Policy 10 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
11. Create a resilient transportation system by preparing for emergencies and the impacts of climate change	Not Applicable. RTP/SCS Policy 11 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Transportation System Management	
12. Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of	Not Applicable. RTP/SCS Policy 12 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
adding roadway capacity, where possible	
13. Prioritize transportation investments that increase travel time reliability, including build-out of the regional express lanes network	Not Applicable. RTP/SCS Policy 13 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Transportation Demand Management	
14. Encourage the development of transportation projects that provide convenient, cost-effective and safe alternatives to single-occupancy vehicle travel (e.g., trips made by foot, on bikes, via transit, etc.)	Not Applicable. RTP/SCS Policy 14 provides direction to City and regional agency staff and decision makers and relates to transportation projects, and is not applicable to the proposed Project.
15. Encourage jurisdictions and TDM practitioners to develop and expand local plans and policies to promote alternatives to single occupancy vehicle travel for residents, workers and visitors	Not Applicable. RTP/SCS Policy 15 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
16. Encourage municipalities to update existing (legacy) TDM ordinances by incorporating new travel modes and new technology and by incorporating employment and residential sites of certain populations – for example, employers who have less than 250 employees (below the 250 or more employees threshold identified in AQMD's Rule 2202)	Not Applicable. RTP/SCS Policy 16provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Technology Integration	
17. Support the implementation of technology designed to provide equal access to mobility, employment, economic opportunity, education, health and other quality-of-life opportunities for all residents within the SCAG region	Not Applicable. RTP/SCS Policy 17 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
18. Advocate for data sharing between the public and private sectors to effectively evaluate the services' benefits and impacts on communities while protecting data security and privacy	Not Applicable. RTP/SCS Policy 18 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
19. Advocate for technology that is adaptive and responsive to ensure it remains up to date and meets the evolving needs of users and stakeholders	Not Applicable. RTP/SCS Policy 19 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
20. Promote technology that has the capacity to facilitate economic growth, improve workforce development opportunities, and enhance safety and security	Not Applicable. RTP/SCS Policy 20 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
21. Proactively monitor and plan for the development, deployment and commercialization of new technology as it relates to integration with transportation infrastructure	Not Applicable. RTP/SCS Policy 21 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Safety	
22. Eliminate transportation-related fatalities and serious injuries (especially those involving vulnerable road users, such as people, especially older adults and children, walking and biking) on the regional multimodal transportation system	Not Applicable. RTP/SCS Policy 22 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
23. Integrate the assessment of equity into the regional transportation safety and security planning process, focusing on the analysis and mitigation of disproportionate impacts on disadvantaged communities	Not Applicable. RTP/SCS Policy 23 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. Although the Project site is located within a SB 535-designated Disadvantaged community, the Project does not include any components related to regional transportation safety or security.
24. Support innovative approaches for addressing transit safety and security issues so that impacts to transit employees and the public are minimized and those experiencing issues (e.g., unhoused persons) are supported	Not Applicable. RTP/SCS Policy 24 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
25. Support the use of transportation safety and system security data in investment decision-making, including consideration of new highway and transit/rail investments that would address safety and security needs	Not Applicable. RTP/SCS Policy 25 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Funding the System/Users Fees	
26. Promote stability and sustainability for core state and federal transportation funding sources	Not Applicable. RTP/SCS Policy 26 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
27. Establish a user fee–based system that better reflects the true cost of transportation, provides firewall protection for new and existing transportation funds, and represents equitable distribution of costs and benefits	Not Applicable. RTP/SCS Policy 27 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, the Project's Traffic Study (EIR *Technical Appendix K*) demonstrates that the proposed Project would not adversely affect any existing intersections within the Project's study area, requiring no transportation-related improvements or fees, beyond mandatory payment of Traffic Impact Fees (TIF) pursuant to City of Monrovia Municipal Code Chapter 3.22 (Traffic Impact Fees).

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
28. Pursue funding tools that promote access to opportunity and support economic development through innovative mobility programs	Not Applicable. RTP/SCS Policy 28 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
29. Promote national and state programs that include return-to-source guarantees while maintaining the flexibility to reward regions that continue to commit substantial local resources	Not Applicable. RTP/SCS Policy 29 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
30. Leverage locally available funding with innovative financing tools to attract private capital and accelerate project delivery	Not Applicable. RTP/SCS Policy 30 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
31. Promote local funding strategies that maximize the value of public assets while improving mobility, sustainability and resilience	Not Applicable. RTP/SCS Policy 31 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Communities	
Priority Development Areas	
32. Promote the growth of origins and destinations, with a focus on future housing and population growth, in areas with existing and planned urban infrastructure that includes transit and utilities	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses, and the Project site is located in close proximity to public transit. Specifically, Foothill Transit Line 270 runs along South Primrose Avenue, with the nearest bus stops occurring at the intersection of South Primrose Avenue and West Walnut Avenue, approximately 230 feet southwest of the Project site. In addition, the Project site is within walking to the Metro Gold Line Monrovia light rail station, located approximately 0.7-mile south of the Project site. Additionally, the Project site is located in an area with urban infrastructure, including utilities, that would be adequate to serve the proposed development.
33. Promote the growth of origins and destinations, in areas with a proclivity toward multimodal options like transit and active transportation, to reduce single occupant vehicle (SOV) dependency and vehicle miles traveled	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses, and the Project site is located in close proximity to public transit. Specifically, Foothill Transit Line

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
	270 runs along South Primrose Avenue, with the nearest bus stops occurring at the intersection of South Primrose Avenue and West Walnut Avenue, approximately 230 feet southwest of the Project site. The Project's proximity to transit options would assist the City in reducing single-occupant vehicle dependency and vehicle miles traveled.
34. Seek to realize scale economies or a critical mass of jobs and destinations in areas across the region that can support non-SOV options and shorter trip distances, combined trips and reduced vehicle miles traveled	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses, and the scale of the Project's land uses and intensity of development in the surrounding area would assist the City in supporting non-SOV options and shorter trip distances, combined trips and reduced vehicle miles traveled.
Housing the Region	
35. Encourage housing development in areas with access to important resources and amenities (economic, educational, health, social and similar) to further fair housing access and equity across the region	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses that would provide services and amenities for future Project residents. In addition, the Project would accommodate 17 low-income affordable units and three moderate-income units, which would help further fair housing access and equity across the region.
36. Encourage housing development in transit-supportive and walkable areas to create more interconnected and resilient communities	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses, and the Project site is located in close proximity to public transit. Specifically, Foothill Transit Line 270 runs along South Primrose Avenue, with the nearest bus stops occurring at the intersection of South Primrose Avenue and West Walnut Avenue, approximately 230 feet southwest of the Project site. The Project's proximity to transit options would assist the City in increasing the amount of housing within transit-supportive and walkable areas, thereby helping to enhance the existing surrounding interconnected and resilient community.
37. Support local, regional, state and federal efforts to	Consistent. The Project Applicant proposes to develop a five-

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
produce and preserve affordable housing while meeting additional housing needs across the region	story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project would accommodate 17 low-income affordable units and three moderate-income units, which would help further fair housing access and equity across the region.
38. Prioritize communities that are vulnerable to displacement pressures by supporting community stabilization and increasing access to housing that meets the needs of the region	Not Applicable. RTP/SCS Policy 38 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
39. Promote innovative strategies and partnerships to increase homeownership opportunities across the region with an emphasis on communities that have been historically impacted by redlining and other systemic barriers to homeownership for people of color and other marginalized groups	Not Applicable. RTP/SCS Policy 39 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
40. Advocate for and support programs that emphasize reducing housing cost burden (for renters and homeowners), with a focus on the communities with the greatest needs and vulnerabilities	Consistent. The Project site is located within a Disadvantaged Community pursuant to SB 535. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project would accommodate 17 low-income affordable units and three moderate-income units, which would assist the City in reducing the housing cost burden within the City within an existing Disadvantaged Community.
41. Support efforts to increase housing and services for people experiencing homelessness across the region	Not Applicable. RTP/SCS Policy 41 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
15-Minute Communities	
42. Promote 15-minute communities as places with a mix of complementary land uses and accessible mobility options that align with and support the diversity of places (or communities) across the region. These are communities where residents can either access their most basic, day-to-day needs within a 15-minute walk, bike ride or roll from their home or as places that result in fewer and shorter trips because of the proximity of complementary land uses	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project site is located in a portion of the City that is fully developed with a mix of residential, commercial, and light industrial uses that would provide services and amenities for future Project residents. The Project site's location in an urbanized area would ensure that future Project residents would have non-vehicular access to basic-day-to-day needs within a 15-minute walk, bike ride, or roll, thereby resulting in fewer and shorter trips due to the proximity of

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
	complementary land uses.
43. Support communities across the region to realize 15-minute communities through incremental changes that improve equity, quality of life, public health, mobility, sustainability, resilience and economic vitality	Not Applicable. RTP/SCS Policy 43 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
44. Encourage efforts that elevate innovative approaches to increasing access to neighborhood destinations and amenities through an array of people-centered mobility options	Not Applicable. RTP/SCS Policy 44 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Equitable Engagement and Decision-Making	
45. Advance community-centered interventions, resources and programming that serve the most disadvantaged communities and people in the region, like Priority Equity Communities, with strategies that can be implemented in the short-to-long-term	Not Applicable. RTP/SCS Policy 45 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
46. Promote racial equity that is grounded in the recognition of the past and current harms of systemic racism and one that advances restorative justice	Not Applicable. RTP/SCS Policy 46 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
47. Increase equitable, inclusive, and meaningful representation and participation of people of color and disadvantaged communities in planning processes	Not Applicable. RTP/SCS Policy 47 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Environment	
Sustainable Development	
48. Promote sustainable development and best practices that enhance resource conservation, reduce resource consumption and promote resilience	Consistent. As presented throughout this EIR, the Project's impacts to the environment would be less than significant or would be reduced to less-than-significant levels with the implementation of mitigation measures. Additionally, the analysis presented in EIR Subsection 4.4, *Energy*, with mandatory compliance with applicable federal and State regulations and requirements, including the provisions of the Title 24 Building Energy Standards, Project construction and operation would not result in the inefficient, wasteful, or unnecessary consumption of energy.
49. Support communities across the region to advance	Not Applicable. RTP/SCS Policy 49 provides direction to City and regional agency staff and decision makers, and is not

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
innovative sustainable development practices	applicable to the proposed Project.
50. Recognize and support the diversity of communities across the region by promoting local place-making, planning and development efforts that advance equity, mobility, resilience and sustainability	Consistent. The Project Applicant proposes to develop a five-story mixed-use building that includes 204 multi-family dwelling units and 2,370 s.f. of commercial retail land uses. The Project would enhance the existing sense of place in the surrounding areas. In addition, the Project would accommodate 17 low-income affordable units and three moderate-income units, which would promote equitable housing opportunities within the City. Additionally, the Project site is located in close proximity to public transit. Specifically, Foothill Transit Line 270 runs along South Primrose Avenue, with the nearest bus stops occurring at the intersection of South Primrose Avenue and West Walnut Avenue, approximately 230 feet southwest of the Project site. The Project's proximity to transit options would promote non-vehicular mobility for future Project residents.
Air Quality	
51. Reduce hazardous air pollutants and greenhouse gas emissions and improve air quality throughout the region through planning and implementation efforts	Consistent. As evaluated herein and in EIR Subsection 4.2, *Air Quality*, Project impacts due to reginal and localized air quality emissions and due to GHG emissions would be less than significant. Thus, the Project would assist the City in reducing hazardous air pollutants and GHG emissions and would assist in improving air quality throughout the region.
52. Support investments that reduce hazardous air pollutants and greenhouse gas emissions	Not Applicable. RTP/SCS Policy 52 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
53. Reduce the exposure and impacts of emissions and pollutants and promote local and regional efforts that improve air quality for vulnerable populations, including but not limited to Priority Equity Communities and the AB 617 Communities	Not Applicable. RTP/SCS Policy 53 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Clean Transportation	
54. Accelerate the deployment of a zero-emission transportation system and use near-zero-emission technology to offer short-term benefits where zero-emissions solutions are not yet feasible or commercially viable	Not Applicable. RTP/SCS Policy 54 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
55. Promote equitable use of and access to clean	Not Applicable. RTP/SCS Policy 55 provides direction to City

2024-2050 RTP/SCA Regional Planning Policies	Project Consistency
transportation technologies so that all may benefit from them	and regional agency staff and decision makers, and is not applicable to the proposed Project.
56. Consider the full environmental life cycle of clean transportation technologies, including upstream production and end of life as an important part of meeting SCAG's objectives in economic development and recovery, resilience planning and achievement of equity	Not Applicable. RTP/SCS Policy 56 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
57. Maintain a technology-neutral approach in the study of, advancement of and investment in clean transportation technology	Not Applicable. RTP/SCS Policy 57 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Natural and Agricultural Lands Preservation	
58. Prioritize the climate mitigation, adaptation, resilience and economic benefits of natural and agricultural lands in the region	Not Applicable. The Project site is located in a fully urbanized portion of the City of Monrovia, and the Project site contains no natural habitats or agricultural lands under existing conditions.
59. Support conservation of habitats that are prone to hazards exacerbated by climate change, such as wildfires and flooding	Not Applicable. RTP/SCS Policy 59 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
60. Support regional conservation planning and collaboration across the region	Not Applicable. RTP/SCS Policy 60 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
61. Encourage the protection and restoration of natural habitat and wildlife corridors	Not Applicable. RTP/SCS Policy 49 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, the Project site is located in a fully urbanized portion of the City and contains no natural habitat and is not a part of any wildlife movement corridors.
62. Encourage the conservation and viability of agricultural lands to protect the regional and local food supply and ensure the sustainability of local agriculture as a vital part of the region's economy	Not Applicable. RTP/SCS Policy 49 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. In addition, the Project site is located in a fully urbanized portion of the City of Monrovia, and the Project site contains no agricultural lands under existing conditions.
63. Encourage policy development of the link between natural and agricultural conservation with public health	Not Applicable. RTP/SCS Policy 63 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.

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Climate Resilience	
64. Prioritize the most vulnerable populations and communities subject to climate hazards to help the people, places and infrastructure that are most at risk for climate change impacts. In doing so, recognize that disadvantaged communities are often overburdened	Not Applicable. RTP/SCS Policy 64 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
65. Support local and regional climate and hazard planning and implementation efforts for transportation, land use, and other factors	Not Applicable. RTP/SCS Policy 65 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
66. Support nature-based solutions to increase regional resilience of the natural and built environment	Not Applicable. RTP/SCS Policy 66 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
67. Promote sustainable water use planning, practices and storage that improve regional water security and resilience in a drier environment	Not Applicable. RTP/SCS Policy 67 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
68. Support an integrated planning approach to help local jurisdictions meet housing production needs in a drier environment	Not Applicable. RTP/SCS Policy 68 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Economy	
Goods Movement	
69. Leverage and prioritize investments, particularly where there are mutual co-benefits to both freight and passenger/commuter rail	Not Applicable. RTP/SCS Policy 69 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
70. Prioritize community and environmental justice concerns, together with economic needs, and support workforce development opportunities, particularly around deployment of zero-emission and clean technologies and their supporting infrastructure	Not Applicable. RTP/SCS Policy 70 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
71. Explore and advance the transition toward zero-emission and clean technologies and other transformative technologies, where viable	Not Applicable. RTP/SCS Policy 71 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
72. Advance comprehensive, systems-level planning of corridor/supply chain operational strategies that is	Not Applicable. RTP/SCS Policy 72 provides direction to City and regional agency staff and decision makers, and is not

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integrated with road and rail infrastructure and inland port concepts	applicable to the proposed Project.
73. Ensure continued, significant investment in a safe, secure, clean and efficient transportation system – including both highways and rail – to support the intermodal movement of goods across the region	Not Applicable. RTP/SCS Policy 73 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Broadband	
74. Support ubiquitous regional broadband deployment and access to provide the necessary infrastructure and capability for Smart Cities strategies—to ensure the benefits of these strategies improve safety and are distributed equitably	Not Applicable. RTP/SCS Policy 74 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
75. Develop networks that are efficient, scalable, resilient and sustainable to support transportation systems management, operations services and "tele-everything" strategies that reduce vehicle miles traveled, optimize efficiency and accommodate future growth of regional economies	Not Applicable. RTP/SCS Policy 75 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
76. Encourage investments that provide access to digital activities that support educational, financial and economic growth	Not Applicable. RTP/SCS Policy 76 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
77. Advocate for current, accurate data to identify opportunity zones and solutions that support the development of broadband services to community anchor institutions and local businesses	Not Applicable. RTP/SCS Policy 77 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
78. Promote an atmosphere that allows for healthy competition and speed-driven innovative solutions while remaining technologically neutral	Not Applicable. RTP/SCS Policy 78 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
79. Use a bottom-up approach to identify and support a community's broadband needs	Not Applicable. RTP/SCS Policy 79 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Universal Basic Mobility	
80. Encourage partnerships and policies to broaden safe and efficient access to a range of mobility services that improve connections to jobs, education and basic services	Not Applicable. RTP/SCS Policy 80 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project. Notwithstanding, the Project site is located in a portion of the City with access to

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	public transit, basic services, and employment opportunities.
81. Promote increased payment credentials for disadvantaged community members and the transition of cash users to digital payment technologies to address payment barriers	Not Applicable. RTP/SCS Policy 81 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Workforce Development	
82. Foster a positive business climate by promoting regional collaboration in workforce and economic development between cities, counties, educational institutions and employers	Not Applicable. RTP/SCS Policy 82 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
83. Encourage inclusive workforce development that promotes upward economic mobility	Not Applicable. RTP/SCS Policy 83 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
84. Support entrepreneurial growth with a focus on underrepresented communities	Not Applicable. RTP/SCS Policy 84 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
85. Foster a resilient workforce that is poised to effectively respond to changing economic conditions (e.g., market dynamics, technological advances and climate change)	Not Applicable. RTP/SCS Policy 85 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
86. Inform and facilitate data-driven decision-making about the region's workforce	Not Applicable. RTP/SCS Policy 86 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
Tourism	
87. Consult and collaborate with state, county and local agencies within the region that are charged with promoting tourism and transportation	Not Applicable. RTP/SCS Policy 87 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.
88. Encourage the reduced use of cars by visitors to the region by working with state, county and local agencies (e.g., park services, transportation agencies) to highlight and increase access to alternative options, including transit, passenger rail and active transportation	Not Applicable. RTP/SCS Policy 88 provides direction to City and regional agency staff and decision makers, and is not applicable to the proposed Project.

2022 CARB SCOPING PLAN CONSISTENCY

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): "…focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting."

The 2022 Scoping Plan lays out a framework to determine Project-level consistency when there is not a CEQA-qualified CAP available to tier off of. CARB recommends that the first approach for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing. The 2022 Scoping Plan goes on to note that Projects that can demonstrate consistency with the priority areas identified on Table 3 *Key Residential and Mixed-Use Project Attributes that Reduce GHGs* from the 2022 Scoping Plan would be aligned with the State's priority GHG reduction strategies and would be deemed consistent with the Scoping Plan. As such, these Projects are considered to be consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs; therefore, the GHG emissions associated with such projects would result in a less-than-significant GHG impact under CEQA.

The Project's consistency with the *Key Residential and Mixed-Use Project Attributes that Reduce GHGs* is summarized on Table 3-9.

TABLE 3-9: PROJECT CONSISTENCY WITH 2022 SCOPING PLAN KEY RESIDENTIAL AND MIXED-USE PROJECT ATTRIBUTES THAT REDUCE GHGS

Priority Areas	Key Project Attribute	Consistency Analysis
Transportation Electrification	Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval	**Consistent.** The Project would include EV charging infrastructure that, at minimum, would equal the Tier 2 Residential and Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2 Therefore, the Project is consistent with this attribute.
VMT Reduction	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously	**Consistent.** The Project site is currently developed with an occupied 25,191 sf commercial

	undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer)	office building and parking lot. The Project would redevelop the underutilized land with a 204 residential unit mixed use development consisting of apartments. The Project would be developed on an infill site that is well served by existing infrastructure and public services. Therefore, the Project is consistent with this attribute.
	Does not result in the loss or conversion of natural and working lands	**Consistent.** The Project site is currently developed with an occupied 25,191 sf commercial office building and parking lot. The Project would not result in the loss or conversion of natural and working lands. Therefore, the Project is consistent with this attribute.
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or Is in proximity to existing transit stops (within a half mile), or Satisfies more detailed and stringent criteria specified in the region's SCS	**Consistent.** The overall density for the Project would be 127.5 dwelling units per acre. Therefore, the Project is consistent with this attribute.
	Reduces parking requirements by: Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or	**Consistent.** Although the Project does not specifically reduce parking requirements, the Project's VMT analysis concludes that the Project meets the Low VMT Screening Criteria, additionally, the Project's retail component meets the Project-type screening criteria and the Project's VMT impact is presumed to be less than significant. As such, the Project would not conflict with VMT reductions consistent with the 2022 Scoping Plan. In accordance with Civil Code Section 1947.1, the

	For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	parking for the apartment units will be unbundled from the unit rent.
	At least 20 percent of units included are affordable to lower-income residents	**Consistent.** The Project would include 17 units allocated for low-income households and three units allocated to moderate-income households. Approximately 9.1 percent of the Project would include affordable units to low/moderate-income residents. Although the Project does not include 20 percent affordable or low-income units, the Project's VMT analysis concludes that the Project meets the Low VMT Screening Criteria, additionally, the Project's retail component meets the Project-type screening criteria and the Project's VMT impact is presumed to be less than significant. As such, the Project would not conflict with VMT reductions consistent with the 2022 Scoping Plan.
	Results in no net loss of existing affordable units	**Consistent.** There are no existing affordable units on the Project site. The Project site is currently developed with an occupied 25,191 sf commercial office building and parking lot. The Project would not result in a net loss of existing affordable units. The Project would meet RHNA requirements per the City's 2021-2029 Housing Element. Therefore, the Project is consistent with this attribute.
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking	**Consistent.** Although some natural gas would be used in association with the proposed on-site commercial space, the Project's residential units would be served by electricity and rooftop solar electricity generation is proposed as part of the Project. The Project's residential units are designed to

		include all-electric appliances and would not include the use of propane or other fossil fuels for space heating, water heating, or indoor cooking. Therefore, the Project would not conflict with the CARB 2022 scoping plan according to this attribute.

As demonstrated on Table 3-9, the Project would be consistent with the 2022 Scoping Plan's key residential and mixed-use project attributes to reduce GHGs. As such, the Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan.

The Project would not have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

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5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed 701 S. Myrtle Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

Haseeb Qureshi
Principal
URBAN CROSSROADS, INC.
hqureshi@urbanxroads.com

EDUCATION

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

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

PROFESSIONAL AFFILIATIONS

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

PROFESSIONAL CERTIFICATIONS

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

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APPENDIX 2.1:

MINUTES FOR THE GHG CEQA SIGNIFICANCE THRESHOLD

Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15

Tuesday, September 28, 2010
SCAQMD, Room GB, 10:00 AM – 12:00 PM

1. Welcome and Introductions

Dr. Elaine Chang, Deputy Executive Officer of SCAQMD's Planning Rule Development and Area Sources Division, called the meeting to order at 10:10 A.M. and asked for self introductions of the working group members and SCAQMD staff. Dr. Chang then presented an overview of the meeting agenda.

2. Review of Significance Threshold Approach

Mr. Mike Krause, Program Supervisor of the CEQA Special Projects section in SCAQMD's Planning Rule Development and Area Sources Division, provided a summary of SCAQMD staff's proposed GHG significance threshold approach, shown in the following bullet points:

- Tier I – Exemptions, e.g., categorical, statutory, etc.
- Tier II – Consistency with a locally adopted GHG reduction plan
- Tier III – Numerical Screening Thresholds

  Mr. Krause reminded the group that on December 5, 2008, the SCAQMD Governing Board adopted a numerical GHG significance threshold of 10,000 MTCO2e/year for industrial projects where the SCAQMD is the lead agency. Staff is now proposing to extend the industrial GHG significance threshold for use by all lead agencies. Similarly, with regard to numerical residential/commercial GHG significance thresholds, at the 11/19/2009 stakeholder working group meeting staff presented two options that lead agencies could choose: option #1 – separate numerical thresholds for residential projects (3,500 MTCO2e/year), commercial projects (1,400 MTCO2e/year), and mixed use projects (3,000 MTCO2e/year) and; option #2 – a single numerical threshold for all non-industrial projects of 3,000 MTCO2e/year. If a lead agency chooses one option, it must consistently use that same option for all projects where it is lead agency. The current staff proposal is to recommend the use of option #2, but allow lead agencies to choose option #1 if they prefer that approach.

- Tier IV – Performance Standards
  - Option 1 – Percent Emission Reduction Target

    SCAQMD staff has no recommendation regarding this approach at this time. Instead, if lead agencies enquire about using this approach, staff would reference the GHG significance approach recommended by San Joaquin Valley APCD and describe some of the challenges of using this approach.
  - Option 2 – Early Implementation of Applicable Measures – this option has been folded into option 3.
  - Option 3 – Sector-based Standard

Dr. Elaine Chang presented information on the currently proposed Tier IV performance standards. Option 3 has been modified to incorporate the Bay Area AQMD's concept of efficiency-based threshold for two target dates: 2020 and 2035. Relative to the 2020 target date, staff agrees with the methodology for establishing the efficiency threshold value of 6.6 MTCO2/yr for plans because this number is based on statewide service population (SP) in 2020. With regard to the project level efficiency threshold SCAQMD staff took a slightly different approach than BAAQMD. To derive the project level efficiency threshold of 4.6, it appears that BAAQMD took the 2020 statewide GHG reduction target for land use only (295,530,000 MTCO2e/yr) and divided it by the total 2020 statewide SP (population plus employment) (44,135,923 + 20,194,661), i.e., (295,530,000 MTCO2e/yr)/(44,135,923 + 20,194,661) = 4.6 MTCO2e/yr. SCAQMD staff believes that instead of using total 2020 statewide employment for all sectors, this approach should have used total 2020 statewide employment for the land use sectors only (17,064,489). If you use total 2020 statewide employment for land use sectors instead of total 2020 statewide employment for all sectors as BAAQMD did, your local project efficiency threshold becomes: (295,530,000 MTCO2e/yr)/(44,135,923 + 17,064,489) = 4.8 MTCO2e/yr.

Relative to the 2035 target date, this target date was selected to be consistent with the GHG reduction target date of SB375. Overall, GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. This 40 percent reduction was applied to the 2020 targets, resulting in an efficiency threshold for plans of 4.1 MTCO2e/yr and an efficiency threshold at the project level of 3.0 MTCO2e/yr.

- Tier V – Mitigation: CEQA Offsets – no changes.

A question was asked whether or not a project must be less than or equal to both the 2020 and 2035 efficiency threshold in order to be considered insignificant. Staff responded yes.

Another stakeholder asked if the lead agency could take credit for GHG design features when determining the significance of GHG impacts. Staff responded yes.

Staff was asked whether or not they had looked at any test cases to see if projects could meet the 2035 efficiency threshold. Staff responded that no test cases were evaluated. However, it may be likely that projects can achieve the 2035 efficiency threshold because the SB375 target GHG reductions are expected to be met primarily through cleaner fleets as a result of fleet turnover and reducing VMT. Consequently, fleet turnover plus a small increment of GHG reductions from land use projects could potentially achieve the 2035 efficiency threshold.

A comment was made that by establishing a GHG significance threshold for both 2020 and 2035, a lead agency would have to continuing mitigating GHG emission impacts for 40 years, which is equivalent to establishing a reasonably available control technology (RACT) rule. Dr. Chang responded that by establishing the 2035 efficiency threshold, to reduce potential GHG impacts to less than significant, the lead agency and project proponent may need to "sharpen their pencils" to identify mitigation measures to remain less than significant. The staff proposal is not considered to be equivalent to a RACT rule because a

project could exceed the 2020 and or 2035 efficiency threshold, but still be approved and built.

A comment was made that exceeding the target efficiency threshold is not just a question of going through the CEQA process, which would require preparation of an EIR, feasible mitigation measures, alternatives, etc. The lead agency would have to approve a project with significant impacts, make findings, and prepare a statement of overriding considerations. In this situation there is legal vulnerability to a certain extent.

A question was asked about how to treat projects where GHG impacts from VMT are a small part of the project. Dr. Chang responded that for this type of project, the lead agency and/or project proponent would have to look at other measures or design features to reduce impacts to less than the 2020 and 2035 efficiency threshold. For these types of projects, it may be difficult to achieve the target efficiency threshold.

A comment was made that the SCAQMD's approach to Tier IV option one, that is, no recommendation, but discuss challenges, implies opposition to this approach. This perceived opposition could jeopardize the Tier II approach, which relies on consistency with a GHG reduction plan. GHG reduction plans will likely rely on a percent GHG reduction to achieve some future target, e.g., AB 32 2020 GHG reduction targets. Although there may be some issues with the percent reduction approach, e.g., gaming the system, there may be valid reasons for using this approach, so the SCAQMD should not discourage it. Another participant suggested that perhaps the SCAQMD could simply say that staff has not sufficiently evaluated this approach and will evaluate the appropriateness of this option on a case-by-case basis.

A comment was made that using SB 375 targets may require GHG reductions that go beyond what would be required in sustainable community strategies (SCSs) and alternative planning strategies (APSs). Further, SB 375 is primarily related to reducing GHG emissions from mobile sources, so establishing 2035 efficiency threshold based only on SB 375 ignores the GHG emission effects from AB 32 (CARB's Scoping Plan). SB 375 relies primarily on process or incentives to reduce GHG emissions rather than mandates. SB 375 also relaxes state requirements to update Housing Elements from five to eight years. CARB's Scoping Plan has provisions for updating the GHG reduction targets every four or eight years, which would provide more flexibility in developing future target efficiency threshold. For this reason and the fact that the Scoping Plan addresses GHG emission reductions from various land use sectors, it may be more appropriated to rely on the GHG emission reduction targets identified by CARB in the Scoping Plan for developing future target efficiency threshold.

A question was asked whether or not a lead agency could use GHG emission offsets to achieve the target efficiency threshold. Staff responded that there did not seem to be a downside to using offsets to get below the target efficiency threshold.

A request was made for SCAQMD staff to eliminate the maximum GHG limit proposal that was discussed at the November 19, 2009 stakeholder working group meeting. Any projects that exceed the maximum GHG limit would be considered significant, even though they

achieved or are less than the target efficiency threshold. Staff stated that they were no longer including the maximum limit in the staff proposal.

A suggestion was made that the SCAQMD should not move forward with the efficiency threshold approach because lead agencies in the Bay Area are encountering a number of serious issues using this approach. In addition, because of the way the efficiency threshold is derived, it may inhibit proposals for mixed use projects rather than encourage them.

3. Other Topics

None.

4. Next Steps

A question was asked regarding when staff expected to bring the current GHG proposals to the Governing Board for consideration. Staff responded that the hope was to bring the proposals to the Board by December 2010. However, this schedule will depend on any feedback from the working group and necessary changes to the current proposals. In addition, the guidance document prepared for the numerical industrial GHG significance threshold needs to be revised and updated to reflect the current proposals.

5. Closing Remarks

The meeting ended at approximately 11:00 a.m. The next meeting is scheduled for August 26, 2009 in meeting room GB at 10:00 AM.

6. Other Business

None.

MEMBERS PRESENT (11)

Greg Adams – City of Los Angeles Bureau of Sanitation
James Arnone – Latham & Watkins
Doug Feremenga – San Bernardino County Land Use Planning Department
Michael Hendrix – Association of Environmental Professionals (AEP)
Shari Libicki, Green Developers Coalition (*on conference call)*
Debbie Stevens – Refineries
Cindy Thielman – Riverside County Planning Department
Jocelyn Thompson - Alston
Matt Vespa – Center for Biological Diversity (CBD) (*on conference call)*
Carla Walecka – Realtors Committee on Air Quality (RCAQ)
Lee Wallace – Sempra Energy Utilities

OTHERS PRESENT (7)

Lilia Barker – LADWP (*on conference call)*

Patrick Griffith – County Sanitation Districts of Los Angeles County
Mark Hagmann – Matrix (*on conference call)*
Sung Key Ma – Riverside County Waste Management Department
Vince Mirabella – Michael Brandman Associates
Molly Pearson – Santa Barbara County APCD (*on conference call*)
Haseeb Qureshi – Urban Crossroads

AQMD STAFF PRESENT (8)

Elaine Chang – Deputy Executive Officer
Steve Smith – Program Supervisor
Daniel Garcia – Air Quality Specialist
Jeff Inabinet – Air Quality Specialist
James Koizumi – Air Quality Specialist
Mike Krause – Program Supervisor
Gordon Mize – Air Quality Specialist
Barbara Radlein – Air Quality Specialist

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APPENDIX 3.1:

CALEEMOD PROPOSED PROJECT EMISSIONS MODEL OUTPUTS

15287 - 701 S Myrtle Ave (Proposed) v2 Detailed Report

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5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15287 - 701 S Myrtle Ave (Proposed) v2
Construction Start Date	3/3/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	24.4
Location	701 S Myrtle Ave, Monrovia, CA 91016, USA
County	Los Angeles-South Coast
City	Monrovia
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4907
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	204	Dwelling Unit	0.89	164,985	19,205	—	604	—

Strip Mall	2.37	1000sqft	0.01	2,370	0.00	—	—	Commercial Space
Health Club	2.78	1000sqft	0.01	2,782	0.00	—	—	Fitness Center
General Office Building	2.47	1000sqft	0.01	2,470	0.00	—	—	Leasing Office/Lobby/Mail Room
Unenclosed Parking with Elevator	329	Space	0.67	124,650	0.00	—	—	—
Recreational Swimming Pool	0.64	1000sqft	< 0.005	640	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

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.	2.48	2.18	19.4	32.2	0.05	0.77	5.32	5.51	0.72	1.33	2.04	—	7,009	7,009	0.33	0.67	21.2	7,111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.8	21.8	15.5	27.9	0.03	0.60	5.32	5.51	0.55	1.25	1.43	—	6,721	6,721	0.30	0.25	0.55	6,805
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.48	2.40	5.68	9.97	0.01	0.22	1.72	1.94	0.20	0.45	0.65	—	2,658	2,658	0.12	0.16	2.69	2,710

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	0.44	1.04	1.82	< 0.005	0.04	0.31	0.35	0.04	0.08	0.12	—	440	440	0.02	0.03	0.45	449

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.48	2.18	19.4	32.2	0.05	0.77	5.32	5.51	0.72	1.33	2.04	—	7,009	7,009	0.33	0.67	21.2	7,111
2026	0.39	0.32	2.93	3.62	0.01	0.12	0.19	0.31	0.11	0.05	0.16	—	992	992	0.04	0.07	1.49	1,017
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.46	2.16	15.5	27.9	0.03	0.60	5.32	5.51	0.55	1.25	1.43	—	6,721	6,721	0.30	0.25	0.55	6,805
2026	21.8	21.8	6.25	26.3	0.01	0.18	5.32	5.50	0.16	1.25	1.41	—	6,611	6,611	0.29	0.25	0.50	6,692
2027	21.8	21.8	0.45	2.31	< 0.005	< 0.005	0.56	0.57	< 0.005	0.13	0.14	—	654	654	0.01	0.04	0.05	665
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.03	0.86	5.68	9.97	0.01	0.22	1.72	1.94	0.20	0.45	0.65	—	2,658	2,658	0.12	0.16	2.69	2,710
2026	2.48	2.40	2.41	6.13	0.01	0.08	0.95	1.03	0.08	0.23	0.30	—	1,555	1,555	0.07	0.08	1.67	1,581
2027	0.94	0.94	0.02	0.10	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	28.5	28.5	< 0.005	< 0.005	0.04	29.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.16	1.04	1.82	< 0.005	0.04	0.31	0.35	0.04	0.08	0.12	—	440	440	0.02	0.03	0.45	449
2026	0.45	0.44	0.44	1.12	< 0.005	0.02	0.17	0.19	0.01	0.04	0.06	—	258	258	0.01	0.01	0.28	262
2027	0.17	0.17	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	0.01	4.80

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.48	2.18	19.4	32.2	0.05	0.77	5.32	5.51	0.72	1.33	2.04	—	7,009	7,009	0.33	0.67	21.2	7,111
2026	0.39	0.32	2.93	3.62	0.01	0.12	0.19	0.31	0.11	0.05	0.16	—	992	992	0.04	0.07	1.49	1,017
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.46	2.16	15.5	27.9	0.03	0.60	5.32	5.51	0.55	1.25	1.43	—	6,721	6,721	0.30	0.25	0.55	6,805
2026	21.8	21.8	6.25	26.3	0.01	0.18	5.32	5.50	0.16	1.25	1.41	—	6,611	6,611	0.29	0.25	0.50	6,692
2027	21.8	21.8	0.45	2.31	< 0.005	< 0.005	0.56	0.57	< 0.005	0.13	0.14	—	654	654	0.01	0.04	0.05	665
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.03	0.86	5.68	9.97	0.01	0.22	1.72	1.94	0.20	0.45	0.65	—	2,658	2,658	0.12	0.16	2.69	2,710
2026	2.48	2.40	2.41	6.13	0.01	0.08	0.95	1.03	0.08	0.23	0.30	—	1,555	1,555	0.07	0.08	1.67	1,581
2027	0.94	0.94	0.02	0.10	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	28.5	28.5	< 0.005	< 0.005	0.04	29.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.16	1.04	1.82	< 0.005	0.04	0.31	0.35	0.04	0.08	0.12	—	440	440	0.02	0.03	0.45	449
2026	0.45	0.44	0.44	1.12	< 0.005	0.02	0.17	0.19	0.01	0.04	0.06	—	258	258	0.01	0.01	0.28	262
2027	0.17	0.17	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	0.01	4.80

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.	11.2	10.3	7.49	58.7	0.13	0.40	9.36	9.76	0.39	2.38	2.77	111	16,490	16,601	11.8	0.44	32.3	17,060
Mit.	11.2	10.3	7.49	58.7	0.13	0.40	9.36	9.76	0.39	2.38	2.77	111	15,994	16,104	11.8	0.44	32.3	16,561

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	3%	3%	< 0.5%	1%	—	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.04	8.33	7.65	37.9	0.12	0.38	9.36	9.75	0.38	2.38	2.76	111	16,011	16,121	11.8	0.46	1.87	16,556
Mit.	9.04	8.33	7.65	37.9	0.12	0.38	9.36	9.75	0.38	2.38	2.76	111	15,514	15,625	11.8	0.46	1.87	16,057
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	3%	3%	< 0.5%	1%	—	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.98	9.37	4.56	48.6	0.10	0.14	9.02	9.16	0.13	2.29	2.42	111	11,946	12,057	11.7	0.45	14.3	12,497
Mit.	9.98	9.37	4.56	48.6	0.10	0.14	9.02	9.16	0.13	2.29	2.42	111	11,449	11,560	11.7	0.44	14.3	11,998
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	4%	4%	< 0.5%	1%	—	4%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	1.71	0.83	8.87	0.02	0.03	1.65	1.67	0.02	0.42	0.44	18.3	1,978	1,996	1.94	0.07	2.36	2,069
Mit.	1.82	1.71	0.83	8.87	0.02	0.03	1.65	1.67	0.02	0.42	0.44	18.3	1,896	1,914	1.93	0.07	2.36	1,986
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	4%	4%	< 0.5%	1%	—	4%

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	4.62	4.15	3.32	39.6	0.10	0.06	9.36	9.42	0.06	2.38	2.43	—	10,164	10,164	0.44	0.38	31.2	10,320
Area	6.48	6.15	3.54	18.8	0.02	0.29	—	0.29	0.29	—	0.29	0.00	4,350	4,350	0.08	0.01	—	4,355
Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,921	1,921	0.18	0.01	—	1,929

Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	11.2	10.3	7.49	58.7	0.13	0.40	9.36	9.76	0.39	2.38	2.77	111	16,490	16,601	11.8	0.44	32.3	17,060
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.58	4.10	3.64	36.1	0.10	0.06	9.36	9.42	0.06	2.38	2.44	—	9,739	9,739	0.46	0.40	0.81	9,870
Area	4.39	4.19	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,921	1,921	0.18	0.01	—	1,929
Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	9.04	8.33	7.65	37.9	0.12	0.38	9.36	9.75	0.38	2.38	2.76	111	16,011	16,121	11.8	0.46	1.87	16,556
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.45	3.99	3.60	36.4	0.09	0.06	9.02	9.08	0.06	2.29	2.35	—	9,638	9,638	0.45	0.39	13.2	9,779
Area	5.45	5.35	0.34	12.0	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	332	332	0.01	< 0.005	—	332
Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,921	1,921	0.18	0.01	—	1,929
Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	9.98	9.37	4.56	48.6	0.10	0.14	9.02	9.16	0.13	2.29	2.42	111	11,946	12,057	11.7	0.45	14.3	12,497
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.73	0.66	6.64	0.02	0.01	1.65	1.66	0.01	0.42	0.43	—	1,596	1,596	0.07	0.06	2.18	1,619
Area	1.00	0.98	0.06	2.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	54.9	54.9	< 0.005	< 0.005	—	55.0
Energy	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	318	318	0.03	< 0.005	—	319
Water	—	—	—	—	—	—	—	—	—	—	—	2.67	9.28	11.9	0.27	0.01	—	20.8
Waste	—	—	—	—	—	—	—	—	—	—	—	15.6	0.00	15.6	1.56	0.00	—	54.7

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.18	0.18
Total	1.82	1.71	0.83	8.87	0.02	0.03	1.65	1.67	0.02	0.42	0.44	18.3	1,978	1,996	1.94	0.07	2.36	2,069

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	4.62	4.15	3.32	39.6	0.10	0.06	9.36	9.42	0.06	2.38	2.43	—	10,164	10,164	0.44	0.38	31.2	10,320
Area	6.48	6.15	3.54	18.8	0.02	0.29	—	0.29	0.29	—	0.29	0.00	4,350	4,350	0.08	0.01	—	4,355
Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,424	1,424	0.13	0.01	—	1,430
Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	11.2	10.3	7.49	58.7	0.13	0.40	9.36	9.76	0.39	2.38	2.77	111	15,994	16,104	11.8	0.44	32.3	16,561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.58	4.10	3.64	36.1	0.10	0.06	9.36	9.42	0.06	2.38	2.44	—	9,739	9,739	0.46	0.40	0.81	9,870
Area	4.39	4.19	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,424	1,424	0.13	0.01	—	1,430
Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	9.04	8.33	7.65	37.9	0.12	0.38	9.36	9.75	0.38	2.38	2.76	111	15,514	15,625	11.8	0.46	1.87	16,057
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.45	3.99	3.60	36.4	0.09	0.06	9.02	9.08	0.06	2.29	2.35	—	9,638	9,638	0.45	0.39	13.2	9,779
Area	5.45	5.35	0.34	12.0	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	332	332	0.01	< 0.005	—	332

Energy	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,424	1,424	0.13	0.01	—	1,430
Water	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Waste	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	9.98	9.37	4.56	48.6	0.10	0.14	9.02	9.16	0.13	2.29	2.42	111	11,449	11,560	11.7	0.44	14.3	11,998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.73	0.66	6.64	0.02	0.01	1.65	1.66	0.01	0.42	0.43	—	1,596	1,596	0.07	0.06	2.18	1,619
Area	1.00	0.98	0.06	2.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	54.9	54.9	< 0.005	< 0.005	—	55.0
Energy	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	236	236	0.02	< 0.005	—	237
Water	—	—	—	—	—	—	—	—	—	—	—	2.67	9.28	11.9	0.27	0.01	—	20.8
Waste	—	—	—	—	—	—	—	—	—	—	—	15.6	0.00	15.6	1.56	0.00	—	54.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.18	0.18
Total	1.82	1.71	0.83	8.87	0.02	0.03	1.65	1.67	0.02	0.42	0.44	18.3	1,896	1,914	1.93	0.07	2.36	1,986

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.78	1.49	14.0	13.1	0.02	0.58	—	0.58	0.54	—	0.54	—	2,257	2,257	0.09	0.02	—	2,265
Demolition	—	—	—	—	—	—	1.14	1.14	—	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.78	1.49	14.0	13.1	0.02	0.58	—	0.58	0.54	—	0.54	—	2,257	2,257	0.09	0.02	—	2,265
Demolition	—	—	—	—	—	—	1.14	1.14	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.34	1.26	< 0.005	0.06	—	0.06	0.05	—	0.05	—	216	216	0.01	< 0.005	—	217
Demolition	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.8	35.8	< 0.005	< 0.005	—	36.0
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.2	95.2	< 0.005	0.01	0.26	99.5

Hauling	0.08	0.02	1.19	0.46	0.01	0.01	0.26	0.27	0.01	0.07	0.08	—	966	966	0.05	0.15	2.24	1,015
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.19	2.36	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	524	524	0.02	0.02	0.05	531
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.2	95.2	< 0.005	0.01	0.01	99.3
Hauling	0.07	0.01	1.23	0.47	0.01	0.01	0.26	0.27	0.01	0.07	0.08	—	966	966	0.05	0.15	0.06	1,013
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.0	51.0	< 0.005	< 0.005	0.08	51.7
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.13	9.13	< 0.005	< 0.005	0.01	9.53
Hauling	0.01	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	92.6	92.6	0.01	0.01	0.09	97.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	0.01	8.56
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.58
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	16.1

3.2. Demolition (2025) - 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	1.78	1.49	14.0	13.1	0.02	0.58	—	0.58	0.54	—	0.54	—	2,257	2,257	0.09	0.02	—	2,265
Demolition	—	—	—	—	—	—	1.14	1.14	—	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.78	1.49	14.0	13.1	0.02	0.58	—	0.58	0.54	—	0.54	—	2,257	2,257	0.09	0.02	—	2,265
Demolition	—	—	—	—	—	—	1.14	1.14	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.34	1.26	< 0.005	0.06	—	0.06	0.05	—	0.05	—	216	216	0.01	< 0.005	—	217
Demolition	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.8	35.8	< 0.005	< 0.005	—	36.0
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.2	95.2	< 0.005	0.01	0.26	99.5

Hauling	0.08	0.02	1.19	0.46	0.01	0.01	0.26	0.27	0.01	0.07	0.08	—	966	966	0.05	0.15	2.24	1,015
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.19	2.36	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	524	524	0.02	0.02	0.05	531
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	95.2	95.2	< 0.005	0.01	0.01	99.3
Hauling	0.07	0.01	1.23	0.47	0.01	0.01	0.26	0.27	0.01	0.07	0.08	—	966	966	0.05	0.15	0.06	1,013
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.0	51.0	< 0.005	< 0.005	0.08	51.7
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.13	9.13	< 0.005	< 0.005	0.01	9.53
Hauling	0.01	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	92.6	92.6	0.01	0.01	0.09	97.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	0.01	8.56
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.58
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	16.1

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.12	2.05	< 0.005	0.15	—	0.15	0.14	—	0.14	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.39	< 0.005	0.03	—	0.03	0.03	—	0.03	—	55.6	55.6	< 0.005	< 0.005	—	55.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	0.01	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	190	190	0.01	0.03	0.52	199
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	102	102	< 0.005	< 0.005	0.17	103
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.5	36.5	< 0.005	0.01	0.04	38.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.9	16.9	< 0.005	< 0.005	0.03	17.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.31
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 (2025) - 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	0.29	0.24	2.12	2.05	< 0.005	0.15	—	0.15	0.14	—	0.14	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.41	0.39	< 0.005	0.03	—	0.03	0.03	—	0.03	—	55.6	55.6	< 0.005	< 0.005	—	55.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	0.01	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	190	190	0.01	0.03	0.52	199
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	102	102	< 0.005	< 0.005	0.17	103

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.5	36.5	< 0.005	0.01	0.04	38.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.9	16.9	< 0.005	< 0.005	0.03	17.1
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.31
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 (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.86	1.57	14.3	13.2	0.02	0.72	—	0.72	0.66	—	0.66	—	2,236	2,236	0.09	0.02	—	2,244
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.76	1.63	< 0.005	0.09	—	0.09	0.08	—	0.08	—	276	276	0.01	< 0.005	—	277

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	0.04	0.32	0.30	< 0.005	0.02	—	0.02	0.01	—	0.01	—	45.6	45.6	< 0.005	< 0.005	—	45.8
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	0.01	0.02	0.35	133
Hauling	0.31	0.06	4.85	1.88	0.03	0.05	1.06	1.11	0.05	0.29	0.34	—	3,949	3,949	0.21	0.62	9.16	4,148
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	65.6	65.6	< 0.005	< 0.005	0.11	66.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.6	15.6	< 0.005	< 0.005	0.02	16.3
Hauling	0.04	0.01	0.63	0.23	< 0.005	0.01	0.13	0.13	0.01	0.04	0.04	—	487	487	0.03	0.08	0.49	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.0

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.70
Hauling	0.01	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.6	80.6	< 0.005	0.01	0.08	84.6

3.6. Grading (2025) - 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	1.86	1.57	14.3	13.2	0.02	0.72	—	0.72	0.66	—	0.66	—	2,236	2,236	0.09	0.02	—	2,244
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.76	1.63	< 0.005	0.09	—	0.09	0.08	—	0.08	—	276	276	0.01	< 0.005	—	277
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	0.04	0.32	0.30	< 0.005	0.02	—	0.02	0.01	—	0.01	—	45.6	45.6	< 0.005	< 0.005	—	45.8
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	0.01	0.02	0.35	133
Hauling	0.31	0.06	4.85	1.88	0.03	0.05	1.06	1.11	0.05	0.29	0.34	—	3,949	3,949	0.21	0.62	9.16	4,148
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	65.6	65.6	< 0.005	< 0.005	0.11	66.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.6	15.6	< 0.005	< 0.005	0.02	16.3
Hauling	0.04	0.01	0.63	0.23	< 0.005	0.01	0.13	0.13	0.01	0.04	0.04	—	487	487	0.03	0.08	0.49	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.0
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.70
Hauling	0.01	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.6	80.6	< 0.005	0.01	0.08	84.6

3.7. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.40	4.16	0.01	0.19	—	0.19	0.17	—	0.17	—	1,143	1,143	0.05	0.01	—	1,147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.40	4.16	0.01	0.19	—	0.19	0.17	—	0.17	—	1,143	1,143	0.05	0.01	—	1,147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.81	0.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	210	210	0.01	< 0.005	—	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.8	34.8	< 0.005	< 0.005	—	34.9
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	1.91	1.72	1.73	27.8	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,531	5,531	0.23	0.19	20.2	5,613
Vendor	0.02	0.01	0.38	0.19	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	336	336	0.01	0.05	0.92	351
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	1.90	1.70	1.92	23.6	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,242	5,242	0.24	0.20	0.52	5,308
Vendor	0.02	0.01	0.40	0.19	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	336	336	0.01	0.05	0.02	351
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	0.35	0.31	0.38	4.56	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	979	979	0.04	0.03	1.61	992
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	61.8	61.8	< 0.005	0.01	0.07	64.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.07	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.27	164
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.7
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 (2025) - 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	0.54	0.46	4.40	4.16	0.01	0.19	—	0.19	0.17	—	0.17	—	1,143	1,143	0.05	0.01	—	1,147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.40	4.16	0.01	0.19	—	0.19	0.17	—	0.17	—	1,143	1,143	0.05	0.01	—	1,147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.81	0.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	210	210	0.01	< 0.005	—	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.8	34.8	< 0.005	< 0.005	—	34.9
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	1.91	1.72	1.73	27.8	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,531	5,531	0.23	0.19	20.2	5,613
Vendor	0.02	0.01	0.38	0.19	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	336	336	0.01	0.05	0.92	351
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	1.90	1.70	1.92	23.6	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,242	5,242	0.24	0.20	0.52	5,308
Vendor	0.02	0.01	0.40	0.19	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	336	336	0.01	0.05	0.02	351
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	0.35	0.31	0.38	4.56	0.00	0.00	0.95	0.95	0.00	0.22	0.22	—	979	979	0.04	0.03	1.61	992
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	61.8	61.8	< 0.005	0.01	0.07	64.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.07	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	162	162	0.01	0.01	0.27	164
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.7
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 (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	0.44	4.12	4.11	0.01	0.17	—	0.17	0.16	—	0.16	—	1,143	1,143	0.05	0.01	—	1,146
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	0.08	0.07	0.64	0.64	< 0.005	0.03	—	0.03	0.02	—	0.02	—	177	177	0.01	< 0.005	—	177
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.2	29.2	< 0.005	< 0.005	—	29.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.66	1.46	1.74	22.0	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,138	5,138	0.23	0.19	0.48	5,201
Vendor	0.02	0.01	0.38	0.18	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	330	330	0.01	0.05	0.02	345
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	0.26	0.22	0.29	3.57	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	806	806	0.04	0.03	1.23	817
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.1	51.1	< 0.005	0.01	0.06	53.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.65	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.20	135
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	0.01	8.83
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 (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	0.53	0.44	4.12	4.11	0.01	0.17	—	0.17	0.16	—	0.16	—	1,143	1,143	0.05	0.01	—	1,146
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	0.08	0.07	0.64	0.64	< 0.005	0.03	—	0.03	0.02	—	0.02	—	177	177	0.01	< 0.005	—	177
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.2	29.2	< 0.005	< 0.005	—	29.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.66	1.46	1.74	22.0	0.00	0.00	5.23	5.23	0.00	1.23	1.23	—	5,138	5,138	0.23	0.19	0.48	5,201
Vendor	0.02	0.01	0.38	0.18	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	330	330	0.01	0.05	0.02	345
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	0.26	0.22	0.29	3.57	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	806	806	0.04	0.03	1.23	817
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.1	51.1	< 0.005	0.01	0.06	53.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.65	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.20	135
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	0.01	8.83
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. Paving (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.39	3.05	< 0.005	0.11	—	0.11	0.11	—	0.11	—	457	457	0.02	< 0.005	—	459
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.39	3.05	< 0.005	0.11	—	0.11	0.11	—	0.11	—	457	457	0.02	< 0.005	—	459
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.11	1.42	< 0.005	0.05	—	0.05	0.05	—	0.05	—	213	213	0.01	< 0.005	—	214
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.20	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.2	35.2	< 0.005	< 0.005	—	35.4
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.7	67.7	< 0.005	< 0.005	0.23	68.7
Vendor	0.03	0.01	0.52	0.25	< 0.005	0.01	0.13	0.14	< 0.005	0.04	0.04	—	468	468	0.02	0.07	1.26	489
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	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.2	64.2	< 0.005	< 0.005	0.01	65.0
Vendor	0.03	0.01	0.54	0.26	< 0.005	0.01	0.13	0.14	< 0.005	0.04	0.04	—	468	468	0.02	0.07	0.03	488
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.4	30.4	< 0.005	< 0.005	0.05	30.8
Vendor	0.02	0.01	0.25	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	218	218	0.01	0.03	0.25	228
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.03	5.03	< 0.005	< 0.005	0.01	5.09
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.1	36.1	< 0.005	0.01	0.04	37.7
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. Paving (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	0.32	0.27	2.39	3.05	< 0.005	0.11	—	0.11	0.11	—	0.11	—	457	457	0.02	< 0.005	—	459
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.39	3.05	< 0.005	0.11	—	0.11	0.11	—	0.11	—	457	457	0.02	< 0.005	—	459
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.11	1.42	< 0.005	0.05	—	0.05	0.05	—	0.05	—	213	213	0.01	< 0.005	—	214
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.20	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.2	35.2	< 0.005	< 0.005	—	35.4
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.7	67.7	< 0.005	< 0.005	0.23	68.7
Vendor	0.03	0.01	0.52	0.25	< 0.005	0.01	0.13	0.14	< 0.005	0.04	0.04	—	468	468	0.02	0.07	1.26	489
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	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.2	64.2	< 0.005	< 0.005	0.01	65.0
Vendor	0.03	0.01	0.54	0.26	< 0.005	0.01	0.13	0.14	< 0.005	0.04	0.04	—	468	468	0.02	0.07	0.03	488
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.4	30.4	< 0.005	< 0.005	0.05	30.8
Vendor	0.02	0.01	0.25	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	218	218	0.01	0.03	0.25	228
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.03	5.03	< 0.005	< 0.005	0.01	5.09
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.1	36.1	< 0.005	0.01	0.04	37.7
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. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.3

Architectural Coating	21.6	21.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.00	2.00	< 0.005	< 0.005	—	2.01
Architectural Coatings	1.94	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Architectural Coatings	0.35	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.17	0.15	0.18	2.23	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	519	519	0.02	0.02	0.05	526
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	130

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.5	47.5	< 0.005	< 0.005	0.07	48.1
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.7
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.86	7.86	< 0.005	< 0.005	0.01	7.96
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.94
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. Architectural Coating (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	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Architectural Coatings	21.6	21.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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-Roa Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.00	2.00	< 0.005	< 0.005	—	2.01
Architectural Coatings	1.94	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Architectural Coatings	0.35	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.17	0.15	0.18	2.23	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	519	519	0.02	0.02	0.05	526
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.01	130
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.5	47.5	< 0.005	< 0.005	0.07	48.1
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.7
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.86	7.86	< 0.005	< 0.005	0.01	7.96
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.94
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 (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Architectural Coatings	21.6	21.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.96	0.96	< 0.005	< 0.005	—	0.96
Architectural Coatings	0.93	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Architectural Coatings	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.17	2.06	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	510	510	0.01	0.02	0.04	515
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	0.01	0.02	0.01	128
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.3	22.3	< 0.005	< 0.005	0.03	22.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.49
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
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 (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Architectural Coatings	21.6	21.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.96	0.96	< 0.005	< 0.005	—	0.96
Architectural Coatings	0.93	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Architectural Coatings	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.17	2.06	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	510	510	0.01	0.02	0.04	515
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	0.01	0.02	0.01	128
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.3	22.3	< 0.005	< 0.005	0.03	22.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.49
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.41	3.06	2.45	29.2	0.07	0.04	6.90	6.94	0.04	1.75	1.79	—	7,488	7,488	0.33	0.28	23.0	7,603
Strip Mall	1.22	1.09	0.87	10.4	0.03	0.02	2.47	2.48	0.01	0.63	0.64	—	2,676	2,676	0.12	0.10	8.23	2,717
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	4.62	4.15	3.32	39.6	0.10	0.06	9.36	9.42	0.06	2.38	2.43	—	10,164	10,164	0.44	0.38	31.2	10,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.37	3.03	2.68	26.6	0.07	0.04	6.90	6.94	0.04	1.75	1.79	—	7,175	7,175	0.34	0.29	0.60	7,272

Strip Mall	1.20	1.08	0.96	9.51	0.03	0.02	2.47	2.48	0.01	0.63	0.64	—	2,564	2,564	0.12	0.11	0.21	2,599
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	4.58	4.10	3.64	36.1	0.10	0.06	9.36	9.42	0.06	2.38	2.44	—	9,739	9,739	0.46	0.40	0.81	9,870
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.59	0.53	0.48	4.85	0.01	0.01	1.20	1.21	0.01	0.31	0.31	—	1,166	1,166	0.05	0.05	1.60	1,183
Strip Mall	0.22	0.20	0.18	1.79	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	429	429	0.02	0.02	0.59	436
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	0.81	0.73	0.66	6.64	0.02	0.01	1.65	1.66	0.01	0.42	0.43	—	1,596	1,596	0.07	0.06	2.18	1,619

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.41	3.06	2.45	29.2	0.07	0.04	6.90	6.94	0.04	1.75	1.79	—	7,488	7,488	0.33	0.28	23.0	7,603
Strip Mall	1.22	1.09	0.87	10.4	0.03	0.02	2.47	2.48	0.01	0.63	0.64	—	2,676	2,676	0.12	0.10	8.23	2,717
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	4.62	4.15	3.32	39.6	0.10	0.06	9.36	9.42	0.06	2.38	2.43	—	10,164	10,164	0.44	0.38	31.2	10,320

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.37	3.03	2.68	26.6	0.07	0.04	6.90	6.94	0.04	1.75	1.79	—	7,175	7,175	0.34	0.29	0.60	7,272
Strip Mall	1.20	1.08	0.96	9.51	0.03	0.02	2.47	2.48	0.01	0.63	0.64	—	2,564	2,564	0.12	0.11	0.21	2,599
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	4.58	4.10	3.64	36.1	0.10	0.06	9.36	9.42	0.06	2.38	2.44	—	9,739	9,739	0.46	0.40	0.81	9,870
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.59	0.53	0.48	4.85	0.01	0.01	1.20	1.21	0.01	0.31	0.31	—	1,166	1,166	0.05	0.05	1.60	1,183
Strip Mall	0.22	0.20	0.18	1.79	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	429	429	0.02	0.02	0.59	436
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	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	0.81	0.73	0.66	6.64	0.02	0.01	1.65	1.66	0.01	0.42	0.43	—	1,596	1,596	0.07	0.06	2.18	1,619

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	—	—	—	—	—	—	—	—	—	—	—	—	709	709	0.07	0.01	—	713
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	22.1	22.1	< 0.005	< 0.005	—	22.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	25.3	25.3	< 0.005	< 0.005	—	25.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	41.7	41.7	< 0.005	< 0.005	—	42.0
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	333	333	0.03	< 0.005	—	335

Recreati Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,132	1,132	0.11	0.01	—	1,138
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	709	709	0.07	0.01	—	713
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	22.1	22.1	< 0.005	< 0.005	—	22.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	25.3	25.3	< 0.005	< 0.005	—	25.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	41.7	41.7	< 0.005	< 0.005	—	42.0
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	333	333	0.03	< 0.005	—	335
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,132	1,132	0.11	0.01	—	1,138
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	117	117	0.01	< 0.005	—	118
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	3.66	3.66	< 0.005	< 0.005	—	3.68
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	4.19	4.19	< 0.005	< 0.005	—	4.22

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91	< 0.005	< 0.005	—	6.95
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	55.2	55.2	0.01	< 0.005	—	55.5
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	187	187	0.02	< 0.005	—	188

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	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.02	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	22.1	22.1	< 0.005	< 0.005	—	22.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	25.3	25.3	< 0.005	< 0.005	—	25.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	41.7	41.7	< 0.005	< 0.005	—	42.0
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	333	333	0.03	< 0.005	—	335

Recreati Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	635	635	0.06	0.01	—	638
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.02	< 0.005	—	214
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	22.1	22.1	< 0.005	< 0.005	—	22.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	25.3	25.3	< 0.005	< 0.005	—	25.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	41.7	41.7	< 0.005	< 0.005	—	42.0
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	333	333	0.03	< 0.005	—	335
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	635	635	0.06	0.01	—	638
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2	< 0.005	< 0.005	—	35.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	3.66	3.66	< 0.005	< 0.005	—	3.68
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	4.19	4.19	< 0.005	< 0.005	—	4.22

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91	< 0.005	< 0.005	—	6.95
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	55.2	55.2	0.01	< 0.005	—	55.5
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	105	105	0.01	< 0.005	—	106

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	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	726	726	0.06	< 0.005	—	728
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.55	4.55	< 0.005	< 0.005	—	4.56
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.2	38.2	< 0.005	< 0.005	—	38.3
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.1
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Recreati Swimming Pool	0.00	0.00	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	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	789	789	0.07	< 0.005	—	791
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	726	726	0.06	< 0.005	—	728
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.55	4.55	< 0.005	< 0.005	—	4.56
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.2	38.2	< 0.005	< 0.005	—	38.3
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.1
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	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	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	789	789	0.07	< 0.005	—	791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.75	0.75	< 0.005	< 0.005	—	0.75
Health Club	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.32	6.32	< 0.005	< 0.005	—	6.34

General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.32	3.32	< 0.005	< 0.005	—	3.33
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	131	131	0.01	< 0.005	—	131

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	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	726	726	0.06	< 0.005	—	728
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.55	4.55	< 0.005	< 0.005	—	4.56
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.2	38.2	< 0.005	< 0.005	—	38.3
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.1
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Recreati Swimming Pool	0.00	0.00	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	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	789	789	0.07	< 0.005	—	791
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	726	726	0.06	< 0.005	—	728
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.55	4.55	< 0.005	< 0.005	—	4.56
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.2	38.2	< 0.005	< 0.005	—	38.3
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.1
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	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	0.07	0.04	0.62	0.29	< 0.005	0.05	—	0.05	0.05	—	0.05	—	789	789	0.07	< 0.005	—	791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.75	0.75	< 0.005	< 0.005	—	0.75
Health Club	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.32	6.32	< 0.005	< 0.005	—	6.34

General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.32	3.32	< 0.005	< 0.005	—	3.33
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	131	131	0.01	< 0.005	—	131

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	0.40	0.20	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Consumer Products	3.70	3.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.10	1.96	0.16	17.3	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.6	54.6	< 0.005	< 0.005	—	54.8

Total	6.48	6.15	3.54	18.8	0.02	0.29	—	0.29	0.29	—	0.29	0.00	4,350	4,350	0.08	0.01	—	4,355
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.40	0.20	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Consumer Products	3.70	3.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.39	4.19	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	48.7	48.7	< 0.005	< 0.005	—	48.8
Consumer Products	0.67	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.25	0.02	2.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.19	6.19	< 0.005	< 0.005	—	6.21
Total	1.00	0.98	0.06	2.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	54.9	54.9	< 0.005	< 0.005	—	55.0

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	0.40	0.20	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Consumer Products	3.70	3.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.10	1.96	0.16	17.3	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.6	54.6	< 0.005	< 0.005	—	54.8
Total	6.48	6.15	3.54	18.8	0.02	0.29	—	0.29	0.29	—	0.29	0.00	4,350	4,350	0.08	0.01	—	4,355
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.40	0.20	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Consumer Products	3.70	3.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.39	4.19	3.38	1.44	0.02	0.27	—	0.27	0.27	—	0.27	0.00	4,295	4,295	0.08	0.01	—	4,300
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	48.7	48.7	< 0.005	< 0.005	—	48.8
Consumer Products	0.67	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.25	0.02	2.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.19	6.19	< 0.005	< 0.005	—	6.21
Total	1.00	0.98	0.06	2.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	54.9	54.9	< 0.005	< 0.005	—	55.0

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	—	—	—	—	—	—	—	—	—	—	—	14.6	50.8	65.3	1.50	0.04	—	114
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.34	1.13	1.47	0.03	< 0.005	—	2.58
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.32	1.06	1.38	0.03	< 0.005	—	2.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.84	2.83	3.68	0.09	< 0.005	—	6.46
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.07	0.24	0.32	0.01	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14.6	50.8	65.3	1.50	0.04	—	114
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.34	1.13	1.47	0.03	< 0.005	—	2.58
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.32	1.06	1.38	0.03	< 0.005	—	2.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.84	2.83	3.68	0.09	< 0.005	—	6.46
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.07	0.24	0.32	0.01	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.41	8.40	10.8	0.25	0.01	—	18.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.06	0.19	0.24	0.01	< 0.005	—	0.43

Health Club	—	—	—	—	—	—	—	—	—	—	—	0.05	0.18	0.23	0.01	< 0.005	—	0.40
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.14	0.47	0.61	0.01	< 0.005	—	1.07
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	2.67	9.28	11.9	0.27	0.01	—	20.8

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	—	—	—	—	—	—	—	—	—	—	—	14.6	50.8	65.3	1.50	0.04	—	114
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.34	1.13	1.47	0.03	< 0.005	—	2.58
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.32	1.06	1.38	0.03	< 0.005	—	2.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.84	2.83	3.68	0.09	< 0.005	—	6.46

Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.07	0.24	0.32	0.01	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14.6	50.8	65.3	1.50	0.04	—	114
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.34	1.13	1.47	0.03	< 0.005	—	2.58
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.32	1.06	1.38	0.03	< 0.005	—	2.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.84	2.83	3.68	0.09	< 0.005	—	6.46
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.07	0.24	0.32	0.01	< 0.005	—	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	16.1	56.0	72.2	1.66	0.04	—	126
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.41	8.40	10.8	0.25	0.01	—	18.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.06	0.19	0.24	0.01	< 0.005	—	0.43
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.05	0.18	0.23	0.01	< 0.005	—	0.40
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.14	0.47	0.61	0.01	< 0.005	—	1.07
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	2.67	9.28	11.9	0.27	0.01	—	20.8

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	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.13	0.00	—	285
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.69

Health Club	—	—	—	—	—	—	—	—	—	—	—	8.55	0.00	8.55	0.85	0.00	—	29.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	1.97	0.00	1.97	0.20	0.00	—	6.88
Total	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.13	0.00	—	285
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.69
Health Club	—	—	—	—	—	—	—	—	—	—	—	8.55	0.00	8.55	0.85	0.00	—	29.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	1.97	0.00	1.97	0.20	0.00	—	6.88
Total	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.22	0.00	0.22	0.02	0.00	—	0.78
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.41	0.00	1.41	0.14	0.00	—	4.95
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.72
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	0.03	0.00	—	1.14
Total	—	—	—	—	—	—	—	—	—	—	—	15.6	0.00	15.6	1.56	0.00	—	54.7

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.13	0.00	—	285
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.69
Health Club	—	—	—	—	—	—	—	—	—	—	—	8.55	0.00	8.55	0.85	0.00	—	29.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	1.97	0.00	1.97	0.20	0.00	—	6.88
Total	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.13	0.00	—	285
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.69
Health Club	—	—	—	—	—	—	—	—	—	—	—	8.55	0.00	8.55	0.85	0.00	—	29.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.24	0.00	1.24	0.12	0.00	—	4.33
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Recreati Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	1.97	0.00	1.97	0.20	0.00	—	6.88
Total	—	—	—	—	—	—	—	—	—	—	—	94.4	0.00	94.4	9.44	0.00	—	330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.35	0.00	—	47.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.22	0.00	0.22	0.02	0.00	—	0.78
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.41	0.00	1.41	0.14	0.00	—	4.95
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.72
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	0.03	0.00	—	1.14
Total	—	—	—	—	—	—	—	—	—	—	—	15.6	0.00	15.6	1.56	0.00	—	54.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.17	0.17
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.18	0.18

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.17	0.17
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.18	0.18

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	3/3/2025	4/18/2025	5.00	35.0	—
Site Preparation	Site Preparation	4/21/2025	7/25/2025	5.00	70.0	—
Grading	Grading	7/28/2025	9/26/2025	5.00	45.0	—
Building Construction	Building Construction	9/29/2025	3/20/2026	5.00	125	—
Paving	Paving	3/23/2026	11/13/2026	5.00	170	—
Architectural Coating	Architectural Coating	11/16/2026	1/22/2027	5.00	50.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	2.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Crawler Tractors	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	1.00	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	1.00	2.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Crawler Tractors	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	1.00	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	40.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	3.00	10.2	HHDT,MHDT
Demolition	Hauling	13.9	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—

Site Preparation	Worker	40.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	6.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	40.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	57.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	400	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.6	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	15.0	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	40.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	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	40.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	3.00	10.2	HHDT,MHDT
Demolition	Hauling	13.9	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	40.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	6.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	40.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	57.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	400	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.6	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	15.0	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	40.4	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00	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	334,095	111,365	12,746	3,957	1,751

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	1,950	—
Site Preparation	—	—	35.0	0.00	—
Grading	—	54,000	67.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.67

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%

Strip Mall	0.00	0%
Health Club	0.00	0%
General Office Building	0.00	0%
Unenclosed Parking with Elevator	0.67	100%
Recreational Swimming Pool	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	926	932	769	330,177	9,664	9,728	8,025	3,445,304
Strip Mall	332	332	332	121,194	3,477	3,477	3,477	1,268,926
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	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	926	932	769	330,177	9,664	9,728	8,025	3,445,304
Strip Mall	332	332	332	121,194	3,477	3,477	3,477	1,268,926
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	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	204
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	204
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)
334094.625	111,365	12,746	3,957	1,751

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

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	747,830	346	0.0330	0.0040	2,265,796

Strip Mall	23,277	346	0.0330	0.0040	14,189
Health Club	26,687	346	0.0330	0.0040	119,075
General Office Building	44,016	346	0.0330	0.0040	62,606
Unenclosed Parking with Elevator	351,264	346	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	346	0.0330	0.0040	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	223,976	346	0.0330	0.0040	2,265,796
Strip Mall	23,277	346	0.0330	0.0040	14,189
Health Club	26,687	346	0.0330	0.0040	119,075
General Office Building	44,016	346	0.0330	0.0040	62,606
Unenclosed Parking with Elevator	351,264	346	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	7,603,855	329,196
Strip Mall	175,552	0.00
Health Club	164,536	0.00
General Office Building	439,002	0.00
Unenclosed Parking with Elevator	0.00	0.00
Recreational Swimming Pool	37,852	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	7,603,855	329,196
Strip Mall	175,552	0.00
Health Club	164,536	0.00
General Office Building	439,002	0.00
Unenclosed Parking with Elevator	0.00	0.00
Recreational Swimming Pool	37,852	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	151	—
Strip Mall	2.49	—
Health Club	15.9	—
General Office Building	2.30	—
Unenclosed Parking with Elevator	0.00	—
Recreational Swimming Pool	3.65	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	151	—
Strip Mall	2.49	—
Health Club	15.9	—
General Office Building	2.30	—
Unenclosed Parking with Elevator	0.00	—

Recreational Swimming Pool	3.65	—

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
Strip Mall	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Health Club	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
General Office Building	Household refrigerators and/or freezers	User Defined	150	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	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
Strip Mall	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0
Health Club	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
General Office Building	Household refrigerators and/or freezers	User Defined	150	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.9	annual days of extreme heat
Extreme Precipitation	9.15	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	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	3	1	1	3
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	84.6
AQ-PM	72.9
AQ-DPM	90.9
Drinking Water	60.3
Lead Risk Housing	58.0
Pesticides	0.00
Toxic Releases	74.4
Traffic	79.3
Effect Indicators	—
CleanUp Sites	94.4
Groundwater	84.1

Haz Waste Facilities/Generators	92.2
Impaired Water Bodies	23.9
Solid Waste	87.9
Sensitive Population	—
Asthma	51.9
Cardio-vascular	36.9
Low Birth Weights	24.6
Socioeconomic Factor Indicators	—
Education	57.6
Housing	29.7
Linguistic	62.2
Poverty	57.3
Unemployment	59.4

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	34.23585269
Employed	39.71512896
Median HI	41.62710124
Education	—
Bachelor's or higher	42.08905428
High school enrollment	100
Preschool enrollment	67.62479148
Transportation	—
Auto Access	27.46054151
Active commuting	71.5642243

Social	—
2-parent households	74.77223149
Voting	15.57808289
Neighborhood	—
Alcohol availability	32.86282561
Park access	46.97805723
Retail density	48.49223662
Supermarket access	75.78596176
Tree canopy	64.69908893
Housing	—
Homeownership	32.22122418
Housing habitability	28.71808033
Low-inc homeowner severe housing cost burden	9.444373155
Low-inc renter severe housing cost burden	67.40664699
Uncrowded housing	29.84729886
Health Outcomes	—
Insured adults	36.09649686
Arthritis	0.0
Asthma ER Admissions	61.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	69.5
Cognitively Disabled	66.4
Physically Disabled	38.4

Heart Attack ER Admissions	45.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	11.7
Elderly	61.3
English Speaking	50.0
Foreign-born	68.7
Outdoor Workers	34.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.6
Traffic Density	83.7
Traffic Access	23.0
Other Indices	—
Hardship	56.6
Other Decision Support	—
2016 Voting	34.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	75.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan. Project total site acreage is 1.60 ac. Residential building square footage includes the total building unit area, balcony sf, and clubhouse sf.
Construction: Construction Phases	Taken from client data.
Construction: Off-Road Equipment	Taken from client data. T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases.

Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for all phases. Per client data, there will be about 20 workers daily during demolition, site preparation, and grading and a maximum of 200 workers during building construction. Based on contractor data for the grading phase, there will be 1,200 CY hauled per day using bottom dump (21-yards) trucks, which will be 57 trips per day for 45 haul days.
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic Analysis.
Operations: Hearths	SCAQMD Rule 445 no wood burning devices. Wood burning devices added to gas devices.
Operations: Architectural Coatings	SCAQMD Rule 1113
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.
Operations: Energy Use	Per client data, no natural gas will be utilized.

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APPENDIX 3.2:

CALEEMOD EXISTING EMISSIONS MODEL OUTPUTS

15287 - 701 S. Myrtle Ave (Existing) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15287 - 701 S. Myrtle Ave (Existing)
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	24.4
Location	701 S Myrtle Ave, Monrovia, CA 91016, USA
County	Los Angeles-South Coast
City	Monrovia
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4907
EDFZ	7
Electric Utility	Southern California Edison
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
General Office Building	25.2	1000sqft	1.60	25,191	0.00	—	—	—

User Defined Commercial	25.2	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	2.24	2.95	17.0	0.05	0.05	3.44	3.50	0.05	0.88	0.93	170	5,088	5,258	17.3	0.36	16.0	5,812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.72	2.05	3.13	14.5	0.05	0.05	3.44	3.49	0.05	0.88	0.93	170	4,926	5,096	17.3	0.37	0.46	5,637
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.39	1.77	2.36	11.7	0.03	0.04	2.48	2.52	0.04	0.63	0.67	170	3,703	3,874	17.2	0.27	5.08	4,389
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.32	0.43	2.14	0.01	0.01	0.45	0.46	0.01	0.12	0.12	28.2	613	641	2.85	0.04	0.84	727

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	1.71	1.48	2.81	15.8	0.05	0.04	3.44	3.48	0.04	0.88	0.92	—	4,831	4,831	0.22	0.35	16.0	4,957
Area	0.19	0.75	0.01	1.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51	4.51	< 0.005	< 0.005	—	4.52
Energy	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	246	246	0.02	< 0.005	—	247
Water	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
Waste	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	1.92	2.24	2.95	17.0	0.05	0.05	3.44	3.50	0.05	0.88	0.93	170	5,088	5,258	17.3	0.36	16.0	5,812
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.71	1.47	3.00	14.4	0.04	0.04	3.44	3.48	0.04	0.88	0.92	—	4,673	4,673	0.23	0.36	0.41	4,786
Area	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	246	246	0.02	< 0.005	—	247
Water	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
Waste	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	1.72	2.05	3.13	14.5	0.05	0.05	3.44	3.49	0.05	0.88	0.93	170	4,926	5,096	17.3	0.37	0.46	5,637
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.24	1.07	2.22	10.8	0.03	0.03	2.48	2.51	0.03	0.63	0.66	—	3,448	3,448	0.17	0.26	5.04	3,535
Area	0.13	0.69	0.01	0.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.09	3.09	< 0.005	< 0.005	—	3.10
Energy	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	246	246	0.02	< 0.005	—	247
Water	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
Waste	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	1.39	1.77	2.36	11.7	0.03	0.04	2.48	2.52	0.04	0.63	0.67	170	3,703	3,874	17.2	0.27	5.08	4,389

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.19	0.41	1.98	0.01	0.01	0.45	0.46	0.01	0.12	0.12	—	571	571	0.03	0.04	0.83	585
Area	0.02	0.13	< 0.005	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.51	0.51	< 0.005	< 0.005	—	0.51
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.7	40.7	< 0.005	< 0.005	—	40.8
Water	—	—	—	—	—	—	—	—	—	—	—	0.34	1.16	1.50	0.04	< 0.005	—	2.63
Waste	—	—	—	—	—	—	—	—	—	—	—	27.8	0.00	27.8	2.78	0.00	—	97.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.25	0.32	0.43	2.14	0.01	0.01	0.45	0.46	0.01	0.12	0.12	28.2	613	641	2.85	0.04	0.84	727

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	1.60	1.46	0.87	15.2	0.03	0.02	3.00	3.02	0.02	0.76	0.77	—	3,165	3,165	0.13	0.09	12.1	3,206
User Defined Commercial	0.11	0.02	1.94	0.68	0.02	0.02	0.44	0.47	0.02	0.12	0.14	—	1,666	1,666	0.09	0.27	3.88	1,751
Total	1.71	1.48	2.81	15.8	0.05	0.04	3.44	3.48	0.04	0.88	0.92	—	4,831	4,831	0.22	0.35	16.0	4,957
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	1.59	1.45	0.98	13.7	0.03	0.02	3.00	3.02	0.02	0.76	0.77	—	3,007	3,007	0.14	0.09	0.31	3,038
User Defined Commercial	0.11	0.02	2.02	0.68	0.02	0.02	0.44	0.47	0.02	0.12	0.14	—	1,666	1,666	0.09	0.27	0.10	1,748
Total	1.71	1.47	3.00	14.4	0.04	0.04	3.44	3.48	0.04	0.88	0.92	—	4,673	4,673	0.23	0.36	0.41	4,786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.21	0.19	0.13	1.89	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	—	369	369	0.02	0.01	0.63	374
User Defined Commercial	0.01	< 0.005	0.27	0.09	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.20	212
Total	0.23	0.19	0.41	1.98	0.01	0.01	0.45	0.46	0.01	0.12	0.12	—	571	571	0.03	0.04	0.83	585

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	88.4	88.4	0.01	< 0.005	—	88.9
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	88.4	88.4	0.01	< 0.005	—	88.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	88.4	88.4	0.01	< 0.005	—	88.9
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	88.4	88.4	0.01	< 0.005	—	88.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	< 0.005	< 0.005	—	14.7
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14.6	14.6	< 0.005	< 0.005	—	14.7

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	157	157	0.01	< 0.005	—	158
User Defined Commercial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	157	157	0.01	< 0.005	—	158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	157	157	0.01	< 0.005	—	158
User Defined Commercial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	157	157	0.01	< 0.005	—	158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.1
User Defined Commercial	0.00	0.00	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	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.19	0.18	0.01	1.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51	4.51	< 0.005	< 0.005	—	4.52
Total	0.19	0.75	0.01	1.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51	4.51	< 0.005	< 0.005	—	4.52
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.51	0.51	< 0.005	< 0.005	—	0.51
Total	0.02	0.13	< 0.005	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.51	0.51	< 0.005	< 0.005	—	0.51

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.06	6.99	9.05	0.21	0.01	—	15.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.34	1.16	1.50	0.04	< 0.005	—	2.63
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.34	1.16	1.50	0.04	< 0.005	—	2.63

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	168	0.00	168	16.8	0.00	—	589
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.8	0.00	27.8	2.78	0.00	—	97.4
User Defined Commercial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	27.8	0.00	27.8	2.78	0.00	—	97.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

General Office Building	409	34.6	13.8	109,158	4,282	362	145	1,142,914
User Defined Commercial	12.0	1.01	0.40	3,200	478	40.2	16.1	127,670

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	37,787	12,596	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	92,504	349	0.0330	0.0040	490,600
User Defined Commercial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	1,075,169	0.00
User Defined Commercial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	312	—
User Defined Commercial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	User Defined	150	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.9	annual days of extreme heat
Extreme Precipitation	9.15	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	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	3	1	1	3
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	84.6
AQ-PM	72.9
AQ-DPM	90.9
Drinking Water	60.3
Lead Risk Housing	58.0
Pesticides	0.00
Toxic Releases	74.4
Traffic	79.3
Effect Indicators	—
CleanUp Sites	94.4
Groundwater	84.1
Haz Waste Facilities/Generators	92.2
Impaired Water Bodies	23.9
Solid Waste	87.9
Sensitive Population	—
Asthma	51.9
Cardio-vascular	36.9
Low Birth Weights	24.6
Socioeconomic Factor Indicators	—
Education	57.6
Housing	29.7
Linguistic	62.2
Poverty	57.3
Unemployment	59.4

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	34.23585269
Employed	39.71512896
Median HI	41.62710124
Education	—
Bachelor's or higher	42.08905428
High school enrollment	100
Preschool enrollment	67.62479148
Transportation	—
Auto Access	27.46054151
Active commuting	71.5642243
Social	—
2-parent households	74.77223149
Voting	15.57808289
Neighborhood	—
Alcohol availability	32.86282561
Park access	46.97805723
Retail density	48.49223662
Supermarket access	75.78596176
Tree canopy	64.69908893
Housing	—
Homeownership	32.22122418
Housing habitability	28.71808033
Low-inc homeowner severe housing cost burden	9.444373155

Low-inc renter severe housing cost burden	67.40664699
Uncrowded housing	29.84729886
Health Outcomes	—
Insured adults	36.09649686
Arthritis	0.0
Asthma ER Admissions	61.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	69.5
Cognitively Disabled	66.4
Physically Disabled	38.4
Heart Attack ER Admissions	45.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—

Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	11.7
Elderly	61.3
English Speaking	50.0
Foreign-born	68.7
Outdoor Workers	34.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.6
Traffic Density	83.7
Traffic Access	23.0
Other Indices	—
Hardship	56.6
Other Decision Support	—
2016 Voting	34.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	75.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from client data
Operations: Vehicle Data	Trip characteristics taken from Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113
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.
Operations: Energy Use	Taken from client data
Operations: Water and Waste Water	Taken from client data
Operations: Solid Waste	Taken from client data

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