VALLARTA MARKET PLACE SHOPPING CENTER PROJECT

AIR QUALTY/GREENHOUSE GAS STUDY

Prepared for:

City of Perris Planning Division
135 North D Street
Perris, CA 92570

Prepared by:

BPG
BIRDSEYE
PLANNING GROUP

February 2025

VALLARTA MARKET PLACE SHOPPING CENTER PROJECT PERRIS, CALIFORNIA

AIR QUALITY and GREENHOUSE GAS STUDY

Table of Contents

List of Figures

List of Tables

Appendices

VALLARTA MARKET PLACE SHOPPING CENTER PROJECT PERRIS, CALIFORNIA

AIR QUALITY and GREENHOUSE GAS STUDY

This report is an analysis of the potential air quality and greenhouse gas impacts associated with the proposed Vallarta Market Place Shopping Center Project in the City of Perris, California. This report has been prepared by Birdseye Planning Group (BPG) under contract to the applicant, to support preparation of the environmental documentation pursuant to the California Environmental Quality Act (CEQA). This study analyzes the potential for temporary air quality and greenhouse gas impacts associated with construction activity and long-term impacts associated with operation of the proposed project.

PROJECT DESCRIPTION

The Project site (APN 300-260-001-8) is located at the southeast corner of Placentia Avenue and North Perris Boulevard and is comprised of approximately 10.55 acres. It is located approximately 0.9 miles east of Interstate 215 (I-215), approximately 8.3 miles south of State Route (SR-) 60 and approximately 1.3 miles south of March Air Reserve Base/Inland Port Airport (MARB/IPA). See Figure 1 – Vicinity Map.

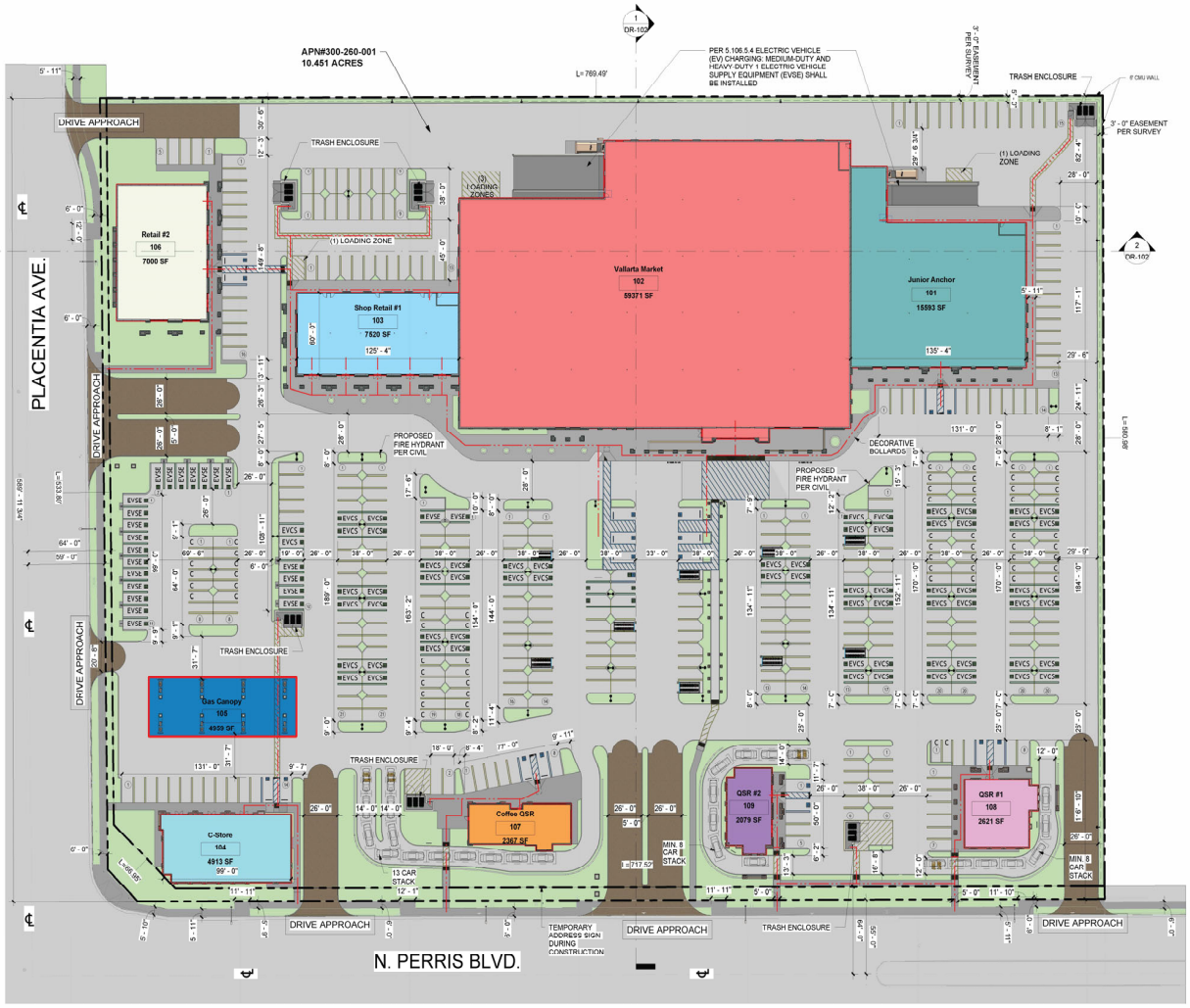
With approval of a Conditional Use Permit and Design Plan Review, the Vallarta Market Place Community Shopping Center (Project) project would construct and operate a total of eight new commercial/retail buildings on a 10.55-acre site located at the southeast corner of Placentia Avenue and North Perris Boulevard. The site is located approximately 0.9 miles east of Interstate 215 (I-215), approximately 8.3 miles south of State Route (SR-) 60 and approximately 1.3 miles south of March Air Reserve Base/Inland Port Airport (MARB/IPA). The project site is vacant, disturbed agricultural land and located within Planning Area 5, designated Community Commercial in the Perris General Plan and zoned Community Commercial. The following describes each of the three project components and addresses on-site improvements that would be required to accommodate the proposed uses. See Figure 2 – Site Plan.

Vallarta Supermarket. The project would construct and operate a new 52,998 square foot grocery store/supermarket on the eastern portion of the site. One delivery dock would be located at the rear of the building (east side).

Retail Building 1. A 7,493 square foot retail building would abut the supermarket building to the north. This would be single-story building with parking and delivery provided at the rear of the building (east side).

Retail Building 2. A 13,490 square foot retail building would abut the supermarket building to the south. This would be single-story building with parking and delivery provided at the rear of the building (east side).

Figure 1—Vicinity Map - **Project Site**



1 **Site Plan**
1" = 40'-0"

Retail Required Parking

Name	Area	Factor	Min. Parking
C-Store	4913 SF	250	20
Junior Anchor	15593 SF	250	63
Retail #2	7000 SF	250	28
Shop Retail #1	7520 SF	250	31
Vallarta Market	59371 SF	250	238
Grand total	94397 SF		380

Drive-In Required Parking

Name	Area	Dining Area	Min. Required Parking
Coffee QSR	2367 SF	947 SF	29
QSR #1	2621 SF	1048 SF	31
QSR #2	2079 SF	832 SF	27
Grand total	7067 SF		87

PARKING REQUIRED:
- 467 SPACES [CITY OF PERRIS CODE OF ORDINANCES, CHAPTER 19.69.030]
- 9 ADA SPACES (INCLUDING 2 VAN ACCESSIBLE) [CBC 2022, TABLE 11B-208.2]
- 20% OF 467 ACTUAL PARKING SPACES = 94 EV CAPABLE SPACES (25% OF 94 EV CAPABLE SPACES = 24 EVSE SPACES PER) [CGBC 2022, TABLE 5.106.5.3.1]

PARKING PROVIDED:
- 489 SPACES (TOTAL)
- 18 ADA SPACES INCLUDED (2 VAN ACCESSIBLE)
- 96 EV CAPABLE SPACES INCLUDING 25 EVSE SPACES AND 1 ADA EVSE SPACE
- 72 COMPACT SPACES (15% OF 477 SPACES = 72 COMPACT SPACES) [19.69.030]

Provided Parking

Parking Type	Count
	5
ADA	16
Compact	68
EVCS	70
EVSE	25
EVSE ADA	1
Regular	302
VAN ADA	2
Total Parking Provided	489

Required Electric Vehicle Parking Per CGBC Table 5.106.5.3.1

Total Parking Spaces Provided	Number of Required EV Capable Spaces (EVCS)	Number of EV Charging Stations (EVSE)
489	98	25

Site GLA Area

Name	Number	Area
Junior Anchor	101	15593 SF
Vallarta Market	102	59371 SF
Shop Retail #1	103	7520 SF
C Store	104	4913 SF
Gas Canopy	105	4959 SF
Retail #2	106	7000 SF
Coffee QSR	107	2367 SF
QSR #1	108	2621 SF
QSR #2	109	2079 SF
Grand total		106422 SF

Site Legend

	PATH OF TRAVEL
EVCS	ELECTRIC VEHICLE CAPABLE SPACES
EVSE	ELECTRIC VEHICLE CHARGING STATIONS WITH SUPPLIED EQUIPMENT.
C	COMPACT

Site Plan Legend

- Vallarta Market
- C-Store
- Coffee QSR
- Gas Canopy
- Junior Anchor
- QSR #1
- QSR #2
- Retail #2
- Shop Retail #1

WSC DESIGN
2501 E Guasti Rd #201
Ontario Ca, 91761
909-544-9118
www.wscdesign.com

Revision Number	Description	Date

Design Review for:

Valgon Properties LLC

22-801
08/05/2024

SE Corner of Placentia and Perris Blvd. Perris, CA 92571

DR-101

Site Plan

Figure 2— Site Plan

Convenience Store/Fueling Station. A 4,435 square foot convenience store and fueling station would be located at the northwest corner of the site. A total of 8 fueling positions and 16 pumps would be constructed. A total of 28 parking spaces would be located proximal to the convenience store to provide employee, customer and vendor parking.

Fast Food Building 1. A 5,500 square foot dine-in/drive-thru restaurant building would be constructed at the northeast corner of the site. The drive-thru menu board and pick up window would be located on the west side of the building facing the parking lot. Parking for Fast Food Building 1 would be in front of the building and at the rear of Retail Building 1.

Fast Food Building 2. A 2,376 square foot fast food building would be provided along the western side boundary, south of the convenience store. The drive-thru menu board and pick up window would be located on the west side of the building facing North Perris Boulevard. A total of five parking spaces and one accessible space would be provided in front (east side) of the building. The remainder of parking would be provided in the adjacent parking lot.

Fast Food Building 3. A 1,866 square foot fast food building would be provided along the western side boundary, south of the Fast Food Building 2. The drive-thru menu board and pick up window would be located on the west side of the building facing North Perris Boulevard. A total of three parking spaces and two accessible spaces would be provided in front (south side) of the building. A total of 10 spaces would be provided to the south between Fast Food Buildings 3 and 4. The remainder of parking would be provided in the adjacent parking lot.

Fast Food Building 4. A 2,610 square foot fast food building would be provided along the western side boundary at the southwestern corner of the site and south of the Fast Food Building 3. The drive-thru menu board and pick up window would be located on the south side of the building facing the southern site boundary. A total of 11 parking spaces and two accessible spaces would be provided in front (north side) and on the east side of the building. The remainder of parking would be provided in the adjacent parking lot.

Site Access. A total of six access driveways would be provided – three from Placentia Avenue and three from North Perris Boulevard. Of the total, four would be single-lane driveways. Two, one on the north side and one on the west side, would be two -lane ingress/egress access points. Delivery vehicles for the grocery store and retail buildings would use driveways at the north and southwest corners of the site. A total of 453 parking spaces are proposed. The total will include 18 accessible spaces and 16 electric vehicle (EV) charging spaces.

Construction Characteristics

Construction is expected to begin in early 2026 and be completed in 2027 (approximately 18 months). The project is likely to be constructed in multiple phases based on market demand; however, for the purpose of this evaluation, it is assumed that all constructed would occur during one phase. Construction activity is regulated by the City's Municipal Code, Section 7.34.060, which allows construction activities during daytime hours (between the hours of 7:00

am and 7:00 pm), Monday through Saturday, except for legal holidays. Construction equipment is expected to operate on the Project site up to eight hours per day during the allowed days and time period; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m. and construction equipment is not in continual use. Rather each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Municipal Code, the applicant would be required to obtain authorization from the City of Perris. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, nighttime work would typically occur between the approximate hours of 2:00 am and 8:00 am.

Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction of the Project would require common construction equipment.

SETTING

Air Pollution Regulation

The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate emissions of airborne pollutants and have established ambient air quality standards for the protection of public health. The EPA is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in California. Federal and state standards have been established for six criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), and lead (Pb). California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Table 1 lists the current federal and state standards for each of these pollutants. Standards have been set at levels intended to be protective of public health. California standards are more restrictive than federal standards for each of these pollutants except lead and the eight-hour average for CO. The federal, state and location regulations that pertain to air pollutants are summarized below.

Federal Regulations

The U.S. Environmental Protection Agency (USEPA) regulates emissions sources such as aircraft, ships, and certain locomotives. The USEPA's air quality mandates are drawn primarily from the Clean Air Act (CAA), which was first enacted in 1955 and subsequently amended; Congress's most recent major amendments were in 1990. The CAA established National Ambient Air Quality Standards (NAAQS). These standards identify air quality levels for criteria pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe (with an adequate margin of safety) to protect the public health and welfare. As part of its enforcement responsibilities, the USEPA requires each State with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that includes pollution control measures that demonstrate how the standards will be met.

Table 1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards	National Standards
Ozone (O_3)	1 hour	0.09 ppm	--
	8 hours	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	8 hours	9.0 ppm	9 ppm
	1 hour	20 ppm	35 ppm
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm
	1 hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual Average	--	0.03 ppm
	24 hours	0.04 ppm	0.14 ppm
	1 hour	0.25 ppm	75 ppb
Respirable Particulate Matter (PM_{10})	24 hours	50 mg/m^3	150 mg/m^3
	Annual Arithmetic Mean	20 mg/m^3	--
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 mg/m^3	12 mg/m^3
	24 hours	--	35 mg/m^3
Sulfates	24 hours	25 mg/m^3	--
Lead	30-day Average	1.5 mg/m^3	--
	Calendar Quarter	--	1.5 mg/m^3
	3-month Rolling Average	--	0.15 mg/m^3
Hydrogen Sulfide	1 hour	0.03 ppm	--
Vinyl Chloride	24 hours	0.010 ppm	--

Notes:
ppm = parts per million
ppb – parts per billion
mg/m3 = micrograms per cubic meter
mg/m3 = milligrams per cubic meter
Source: California Air Resources Board 2016

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attaining and incorporating additional sanctions for failure to attain or meet interim milestones. The CAA sections most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. As stated,

The South Coast Air Basin (SCAB), where the project area is located, is a non-attainment area for both the federal and state standards for ozone and $PM_{2.5}$. The SCAB is in attainment for the state and federal standards for PM_{10}, nitrogen dioxide, and carbon monoxide.

State Regulations

California Environmental Protection Agency

The mission of the California Environmental Protection Agency (CalEPA) is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality. This is accomplished by developing, implementing, and enforcing environmental laws that regulate air, water, and soil quality, pesticide use, and waste recycling and reduction. Relevant to air quality, the California Environmental Protection Agency (CalEPA) consists of CARB and the Office Environmental Health Hazard Assessment (OEHHA). In 2012, the Legislature passed Senate Bill (SB) 535, which targets disadvantaged communities in California for the investment of proceeds from the State's cap-and-trade program to improve public health, quality of life, and economic opportunity in California's most burdened communities, while also reducing pollution. SB 535 directed that 25% of the Greenhouse Gas Reduction Fund's proceeds go to projects that provide a benefit to disadvantaged communities. The legislation gave CalEPA responsibility for identifying those communities. In 2016, the Legislature passed Assembly Bill (AB) 1550, which now requires that 25% of proceeds from the fund be spent on projects located in disadvantaged communities. CalEPA has prepared a list of disadvantaged communities for the purpose of SB 535 and CalEnviroScreen is a general mapping tool developed by OEHHA to help identify California communities that are most affected by sources of pollution.

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for ensuring implementation of the California Clean Air Act (CCAA) (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates the achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources to attain the state ambient air quality standards by the earliest practical date. CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO4, visibility, hydrogen sulfide (H2S), and vinyl chloride (C2H3Cl). However, at this time, H2S and C2H3Cl are not measured at any monitoring stations in the South Coast Air Basin (SCAB) because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (as shown in Table 4.2-1).

Community Air Protection Program

In response to AB 617 (2017), which addresses criteria air pollutants and TACs from sources other than vehicles, CARB established the Community Air Protection Program (CAPP). The CAPP's focus is to reduce exposure in communities most impacted by air pollution. This Statewide effort includes community air monitoring and community emissions reduction programs. In addition, the Legislature appropriated funding to support early actions to address

localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities and grants to support community participation in the CAPP process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State. This new effort provides an opportunity to continue to enhance air quality planning efforts and better integrate community, regional, and State level programs to provide clean air for all Californians.

Title 24 Building Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) 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. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. On August 11, 2021, the CEC adopted the 2022 Energy Code. In December 2021, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. Among other updates like strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards such as new electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores; the promotion of electric-ready requirements for new homes including the addition of circuitry for electric appliances, battery storage panels and dedicated infrastructure to allow for the conversion from natural gas to electricity; and the expansion of solar photovoltaic and battery storage standards to additional land uses including high-rise multi-family residences, hotels and motels, tenant spaces, offices (including medical offices and clinics), retail and grocery stores, restaurants, schools, and civic uses (including theaters auditoriums, and convention centers). Newly constructed commercial buildings would also be required to have a solar photovoltaic (PV) array and an energy storage system (ESS) installed. Projects whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

Regional Regulations

Southern California Association of Governments

Adopted by SCAG in April 2024, Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern California residents within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

South Coast Air Quality Management District

The City of Perris is located in the South Coast Air Basin (SCAB), where the South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all applicable federal and State government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines when necessary. SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of air quality management plans (AQMPs).

SCAQMD Rules

There are numerous requirements that development and redevelopment projects must comply with by law. They were put in place by federal, State, and local regulatory agencies to improve air quality. Rules that are applicable to the proposed Project include the following:

South Coast AQMD Rule 401, Visible Emissions, states that project or person shall -not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is: (1) As dark or darker in shade as that designated No. I on the Ringelmann Chart, as published by the United States Bureau of Mines, or (2) Of such Opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a)(1) of this rule.

South Coast AQMD Rule 402, Nuisance, states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

South Coast AQMD Rule 403, Fugitive Dust, is intended to reduce the amount of particulate matter entrained in the ambient air due to anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earthmoving and grading activities.

South Coast AQMD Rule 1110.2, Emissions from Gaseous and Liquid Fueled Engines. The purpose of Rule 1110.2 is to reduce Oxides of Nitrogen (NOx), Volatile Organic Compounds (VOCs), and Carbon Monoxide (CO) from engines. All stationary and portable engines over 50 rated brake horsepower (bhp) are subject to this rule.

South Coast AQMD Rule 1113, Architectural Coating, limits the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the South Coast Air Basin. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast Air Basin must comply with the current VOC standards set in this rule.

South Coast AQMD Rule 1116, Permit to Operate. The purpose of this rule is to limit the emission of Volatile Organic Compounds (VOC) from Coatings associated with the Refinishing of Motor Vehicles, Mobile Equipment and their Associated Parts and Components.

South Coast AQMD Rule 1470, Requirements for Stationary Diesel Fueled Internal Combustion and Other Compression Ignition Engines. This rule shall apply to any person who either sells a stationary compression ignition engine, offers a stationary compression ignition engine for sale, leases a stationary compression ignition engine, or purchases a stationary compression ignition engine for use in the South Coast Air Quality Management District, except as provided in subdivision. (2) This rule shall apply to any person who owns or operates a stationary compression ignition engine in the South Coast Air Quality Management District with a rated brake horsepower greater than 50 (>50 bhp), except as provided in subdivision (h).

South Coast AQMD Rule 201, Permit to Construct, requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants ….", and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate. Rule 219, Equipment Not Requiring a Written Permit Pursuant to Regulation II, identifies "equipment, processes, or operations that emit small amounts of contaminants that shall not require written permits.

South Coast AQMD Rule 203, Permit to Operate requires that a person shall not operate or use any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate.

Local Regulations

City of Perris

Local jurisdictions, such as the City of Perris, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Perris is also responsible for the implementation of transportation control measures as outlined in the 2022 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by

conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

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

The Healthy Community Element of the City of Perris General Plan identifies the following policy for air pollutant emissions generated by development projects:

Policy HC 6.3: Promote measures that will be effective in reducing emissions during construction activities:

- Perris will ensure that construction activities follow existing South Coast AQMD rules and regulations.

- All construction equipment for public and private projects will also comply with California Air Resources Board's vehicle standards. For projects that may exceed daily construction emissions established by the South Coast AQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the South Coast AQMD.

- Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded.

Ambient Air Quality

As stated, local air quality management control is provided by the ARB through county-level or regional (multi-county) Air Quality Management Districts (AQMDs). The ARB establishes air quality standards and is responsible for control of mobile emission sources, while the local AQMDs are responsible for enforcing standards and regulating stationary sources. The ARB has established 15 air basins statewide. The project site is located within the SCAB, which includes portions of Los Angeles, Orange and Riverside Counties. Air quality conditions in the project area are under the jurisdiction of the SCAQMD. The SCAQMD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." The SCAB, in which the project area is located, is a non-attainment area for both the federal and state standards for ozone and $PM_{2.5}$. The SCAB is in attainment for the state and federal standards for PM_{10},

nitrogen dioxide, and carbon monoxide. Characteristics of ozone, carbon monoxide, nitrogen dioxide, and suspended particulates are described below.

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases (ROG)[1]. Nitrogen oxides are formed during the combustion of fuels, while reactive organic compounds are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide. Carbon monoxide is a local pollutant that is found in high concentrations only near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Nitrogen Dioxide. Nitrogen dioxide (NO_2) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Suspended Particulates. Respirable particulate matter (PM_{10}) is particulate matter measuring no more than 10 microns in diameter, while fine particulate matter ($PM_{2.5}$) is particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates and sulfates. Both PM_{10} and $PM_{2.5}$ are by-products of fuel combustion and wind erosion of soil and unpaved roads, and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates ($PM_{2.5}$) can be

[1] Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, from an air quality perspective two groups are important: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC).

very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Toxic Air Contaminants/Diesel Particulate Matter. Hazardous air pollutants, also known as toxic air pollutants (TACs) or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Examples of toxic air pollutants include:

- benzene, which is found in gasoline;
- perchloroethylene, which is emitted from some dry-cleaning facilities; and
- methylene chloride, which is used as a solvent.

Transportation related emissions are focused on particulate matter constituents within diesel exhaust and TAC constituents that comprise a portion of total organic gas (TOG) emissions from both diesel and gasoline fueled vehicles. Diesel engine emissions are comprised of exhaust particulate matter and TOGs which are collectively defined for the purpose of an HRA, as Diesel Particulate Matter (DPM). DPM and TOG emissions from both diesel and gasoline fueled vehicles is typically composed of carbon particles and carcinogenic substances including polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and oxides of nitrogen (NO_x). This issue is addressed in detail in the Health Risk Assessment prepared for the project and summarized in this report.

Regional Climate and Local Air Quality

South Coast Air Basin. The climate of the South Coast Air Basin is determined by its terrain and geographical location. The South Coast Air Basin consists of a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the South Coast Air Basin. The South Coast Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific. The resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms, or easterly Santa Ana wind conditions can occur.

Annual average temperatures vary little throughout the South Coast Air Basin, ranging from the low-to-middle 60s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The majority of annual rainfall in the South Coast Air Basin occurs between October and March. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal

regions and slightly heavier showers in the eastern portion of the South Coast Air Basin and along the coastal side of the mountains. Average temperatures in winter months in the project area range from a low of 34 degrees F to a high of 68 degrees F. In the summer, average temperatures range from a low of 59 degrees F to a high of 98 degrees F. During an average year, the greatest amount of precipitation, 2.86 inches, occurs in February.

The South Coast AQMD operates a network of 32 permanent ambient air monitoring stations and two single pollutant source impact air monitoring sites throughout the South Coast Air Basin. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the California and federal ambient air quality standards. The City of Perris is located within Source Receptor Area 24 (Perris Valley). Prior to 2022, ambient air emissions of ozone within Source Receptor Area 24 were monitored at the Perris Valley station, which was located approximately 2.3 miles southwest of the Project site. This monitoring station also measured ambient concentrations of PM_{10} prior to 2021. Ambient air quality concentrations are no longer monitored within Source Receptor Area 24. To identify existing ambient air quality for this area in Table 2, data were also obtained from the Lake Elsinore monitoring station located on West Flint Street Table 2 provides a summary of monitoring data at the Perris Valley station for ozone and PM_{10}. Nitrogen oxide and $PM_{2.5}$ data is provided from the Lake Elsinore monitoring station.

As shown, in 2021, the state PM_{10} and federal ozone standards were exceeded at the Perris Valley monitoring station. The federal ozone standard was exceeded in 2022 and 2023. Nitrogen oxide standards were not exceeded during the years reported. No exceedances of the Nitrogen Dioxide standards were recorded. Four exceedances of the PM_{10} standard occurred in 2021 at the Perris Valley station. The federal PM_{10} standard was exceeded once in 2025. There is insufficient data to determine whether the $PM_{2.5}$ standard was exceeded in 2021, 2022 or 2023.

Air Quality Management Plan

The NAAQS and CAAQS presented in Table 2 establish the context for the local AQMPs and for determining the significance of a project's contribution to local or regional pollutant concentrations. The NAAQS and CAAQS represent the level of air quality considered safe, with an adequate safety margin, to protect public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise.

The SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and State air quality standards. Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the State and federal ambient air quality standards. AQMPs are updated regularly to more effectively reduce emissions, accommodate growth, and minimize any negative fiscal impacts of air pollution control on the economy. The current AQMP was adopted by the SCAQMD Governing Board on December 2, 2022. The AQMP control measures and related

emission reduction estimates are based on emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections.

Table 2
Ambient Air Quality Data

Pollutant	2021	2022	2023
Ozone, ppm – First High 8-Hour Average (2015 Standard)	0.094	0.091	0.103
Number of days of above 2015 standard (>0.070 ppm)	55	37	31
Nitrogen Dioxide, ppm – First High National	43.7	37.2	41.7
Nitrogen Dioxide, ppm – First High State	43	37	41
Days above the State standard (>0.18 ppm)	0	0	0
Days above the national standard (>100 ppb)	0	0	0
Particulate Matter <10 microns, μg/m^3 First High Federal	77.5	91.8	187
Particulate Matter <10 microns, μg/m^3 First High State	73.5	84.8	87
Estimated number of days greater than national 24-hour standard (>150 μg/m^3)	0	0	1
Estimated number of days greater than state standard (>50 μg/m^3)	4	ND	ND
Particulate Matter <2.5 microns, μg/m^3 First High	28.8	16.2	19.9
Annual average (exceedances of 12 μg/m^3 standard not reported)	ND	ND	ND
Number of samples of Federal exceedances (>12 μg/m^3)	ND	ND	ND

Perris – 237 ½ North D Street Monitoring Station - 2021 Ozone and PM10 data only
Note – Nitrogen Dioxide, PM10 (2022 and 2023), Ozone (2022 and 2023) and PM2.5 data from Lake Elsinore West Flint Street monitoring station
**Data insufficient to determine the value*
Source: California Air Resources Board, 2021, 2022, 2023 Annual Air Quality Data Summaries available at https://www.arb.ca.gov/adam/topfour/topfour1.php

Sensitive Receptors

Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to air pollutants. Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare as well that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The sensitive receptors located nearest to the Project site are the single-family

residences located north of the site across Placentia Avenue, adjacent to and east of the site and south of the Project site.

AIR QUALITY IMPACT ANALYSIS

Methodology

This air quality analysis conforms to the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook* (1993). The handbook includes thresholds for emissions associated with both construction and operation of proposed projects. All emissions were calculated using the California Emissions Estimator Model (CalEEMod) software version 2022.1.

Construction activities such as demolition, clearing, grading and excavation would generate diesel and dust emissions. Construction equipment that would generate criteria air pollutants includes excavators, graders, dump trucks, and loaders. It was assumed that all construction equipment used would be diesel-powered. Construction emissions associated with development of the proposed project by estimating the types of equipment (including the number) that would be used on-site during each of the construction phases. Construction emissions are analyzed using the regional thresholds established by the SCAQMD and published in the *CEQA Air Quality Handbook.*

Operational activities associated with the Project would result in emissions of VOCs, NOx, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions are generated by area, energy and mobile sources which are summarized as follows:

Area Source Emissions

Architectural Coatings. Over time the building constructed as part of the project would require maintenance. Emissions would be generated from the use of evaporative solvents contained in paints, varnishes, primers, and other surface coatings. As required per South Coast AQMD Rule 1113, the construction contractors would be required to utilize "Super-Compliant" VOC paints. These paints have a VOC standard of less than 10 grams per liter. The default traffic coating value of 100 grams per liter was assumed for parking lot striping.

Consumer Products. Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants.

Landscape Maintenance Equipment. Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, blowers, trimmers and related equipment used to maintain the landscaping.

Energy Source Emissions

Natural Gas and Electricity. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. When combustion of natural gas occurs within a building, the building is considered a direct emission source and CalEEMod 2022.1 would calculate emissions of all criteria pollutants. The project is not expected to use natural gas; thus, no emissions would be generated by this source.

With respect to electricity, energy used in buildings is typically generated by off-site facilities (i.e., power plants). Because power plants are existing stationary sources, criteria pollutant emissions are generally associated with the power plants and not the individual buildings or electricity users. Project-related electricity generation is considered to take place off-site; and therefore, criteria pollutant emissions are not accounted for.

Mobile Sources

As reported in the *Trip Generation and VMT Screening Analysis for the Proposed Vallarta Market Place Community Shopping Center Project* (Mizuta Traffic Consulting, Inc. October 2024), the proposed Project would generate an estimated average of 16,614 new daily trips. The Project related operational air quality emissions are derived primarily from vehicle trips. Trip generation rates as well as trip type, primary and pass-by (i.e., vehicles already on the street but stop when passing by the site) associated with the project were adjusted in CalEEMod to match the approved trip generation rates and pass by percentages for each proposed use in the above-referenced trip generation memorandum.

Regional Thresholds. Based on Appendix G of the *CEQA Guidelines*, a project would have a significant air quality impact if it would:

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

The SCAQMD has developed specific quantitative thresholds that apply to projects within the SCAB. The current thresholds of significance were published by the SCAQMD in March 2023. The following significance thresholds apply to short-term construction activities:

- *75 pounds per day of VOC*
- *100 pounds per day of NOx*
- *550 pounds per day of CO*
- *150 pounds per day of SOx*

- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

The following significance thresholds apply to long-term operational emissions:

- *55 pounds per day of VOC*
- *55 pounds per day of NO_X*
- *550 pounds per day of CO*
- *150 pounds per day of SO_X*
- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The Project is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast AQMD. The South Coast AQMD is required, pursuant to the federal Clean Air Act, to reduce criteria pollutant emissions for which the South Coast Air Basin is in nonattainment. To reduce such emissions, the South Coast AQMD adopted a series of AQMPs. The AQMPs are a regional and multi-agency effort including the South Coast AQMD, CARB, SCAG, and the U.S. EPA. AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. The current AQMP was adopted by the South Coast AQMD Governing Board in December 2022.

The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including Connect SoCal, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's Connect SoCal 2020 growth forecasts were defined in consultation with local governments and with reference to local general plans.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Sections 12.2 and Section 12.3 of the South Coast AQMD CEQA Air Quality Handbook. These indicators are discussed below.

Consistency Criterion No. 1: The proposed Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refers to are the national and state ambient air quality standards. National and state ambient air quality standards violations would occur if localized significance thresholds were exceeded. As discussed in greater detail below, The South Coast AQMD has developed localized significance thresholds (LSTs) in response to concerns regarding the exposure of individuals to criteria pollutants in local communities. LSTs

represent the maximum emissions from a project that would not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area, project size, distance to the sensitive receptor and related factors. As discussed below, the Project's construction and operational activities would not exceed the South Coast AQMD applicable LSTs. Therefore, the Project would not conflict with the 2022 AQMP.

Consistency Criterion No. 2: The Project would not exceed the assumptions in the AQMP based on the years of Project build-out phase.

As stated, under state law, the South Coast AQMD is required to prepare an AQMP for pollutants for which the South Coast Air Basin is designated non-attainment. Each iteration of the South Coast AQMD AQMP is an update of the previous plan and has a 20-year horizon. A project may be deemed inconsistent with the AQMP if it would generate population, housing or employment growth exceeding forecasts used in the development of the AQMP. The 2022 AQMP incorporates local city General Plans and the Connect SoCal 2020 socioeconomic forecast projections of regional population, housing and employment growth. The growth projections from Connect SoCal 2020 were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2022 AQMP. Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment.

The project site has a City of Perris General Plan land use designation of Community Commercial. Because the Project would be consistent with the General Plan land use designation, it would also be consistent with the regional growth projections adopted in the 2022 AQMP. Therefore, the Project would not conflict with or obstruct the AQMP and not cause an adverse impact under threshold (a).

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles, in addition to VOC that would be released during the drying phase upon application of paint and other architectural coatings. Construction would generally consist of demolition, site preparation, grading, construction of the proposed buildings, paving, and architectural coating (i.e., paint) application.

Graded soils would be balanced on the project site; thus, no soil import or export would be

required. The project would be required to comply with SCAQMD Rule 403, as referenced above, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Therefore, the following conditions, which are required to reduce fugitive dust in compliance with SCAQMD Rule 403 were included in CalEEMod for site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day. The analysis provided herein assumes watering would occur two times daily.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Construction emissions modeling for demolition, site preparation, grading, building construction, paving, and architectural coating application is based on the overall scope of the proposed development and construction phasing which is expected to begin in 2026 and extend through 2027. For dust control, it was assumed the disturbed area would be watered twice daily. In addition to SCAQMD Rule 403 requirements, emissions modeling also accounts for the use of low-VOC Super-Compliant paint (10 g/L for non-flat coatings and 100 g/L for

pavement coatings) as required by SCAQMD Rule 1113. Table 3 summarizes the estimated maximum mitigated daily emissions of pollutants occurring during each year of construction. As shown in Table 3, construction of the proposed project would not exceed the SCAQMD regional thresholds.

Table 3
Estimated Maximum Mitigated Daily Construction Emissions

Construction Phase	Maximum Emissions (lbs/day)					
	VOC	NO_x	CO	SOx	PM_{10}	$PM_{2.5}$
2026 Maximum lbs/day	3.21	29.2	29.8	0.05	6.58	3.82
2027 Maximum lbs/day	45.4	11.0	16.4	0.03	1.07	0.51
SCAQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded 2026	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2027	**No**	**No**	**No**	**No**	**No**	**No**

Note: Daily emissions show cumulative emissions from construction of all proposed uses. See Appendix A

Long-Term Regional Impacts

Regional Pollutant Emissions

Table 4 summarizes summer emissions summer emissions associated with operation of the proposed Project. Operational emissions include emissions from electricity consumption (energy sources), vehicle trips (mobile sources), and area sources including architectural coating emissions as the structures are repainted over the life of the project. As shown in Table 4, daily emissions would exceed the South Coast AQMD thresholds for ROG/VOC. Daily thresholds for NOx, CO, SO_X, PM_{10} and $PM_{2.5}$ would not be exceeded. Therefore, the Project's regional air quality impacts would be significant. As shown in Table 4, the vast majority of emissions generated by the Project would be generated by motor vehicles traveling to and from the Project site. The only means of reducing this impact is to reduce the number of vehicles with internal combustion engines that travel to and from the Project site. There are no reasonable or feasible mitigation measures that would reduce potential operational air quality impacts to a less than significant level.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Significance Thresholds. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, distance to the sensitive receptor and related factors. However, LSTs only

Table 4
Estimated Operational Emissions

	Estimated Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile	58.1	36.4	323.0	0.74	64.7	16.8
Area	3.4	0.04	4.72	<0.005	0.01	0.01
Energy	0.04	0.67	0.57	<0.005	0.05	0.05
Total Daily Emissions	61.5	37.1	328	0.74	64.8	16.9
South Coast AQMD Thresholds of Significance	55	55	550	150	150	55
Threshold Exceeded?	Yes	No	No	No	No	No

See Appendix for CalEEMod version. 2022.1 computer model output for operational emissions. Summer emissions shown.
Note – totals may vary slightly due to rounding.

apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003).

LSTs have been developed for emissions within areas up to five acres in size, with air pollutant modeling recommended for activity within larger areas. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. A total of 3.5 acres would be disturbed daily during the site preparation and grading phases. To provide a conservative evaluation of potential short-term LST impacts, the look up table values for two acres were used for both site preparation and grading. The project site is located in Source Receptor Area 24 (SRA-24, Perris Valley). LSTs for construction related emissions in the SRA 24 at varying distances between the source and receiving property are shown in Table 5.

The South Coast AQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011). The following describes the methods used to apply the fact sheet methods to the CalEEMod output data for comparison with the Localized Significance Thresholds (LSTs). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. Construction-related emissions reported by CalEEMod are compared to the localized significance threshold lookup tables. Table 5 and CalEEMod output in Appendix A shows the construction equipment assumed for this analysis.

Table 5
SCAQMD LSTs for Construction

Pollutant	Allowable emissions as a function of receptor distance in meters from a two-acre site (lbs/day)				
	25	**50**	**100**	**200**	**500**
Gradual conversion of NO_x to NO_2	170	200	264	379	684
CO	883	1,262	2,232	5,136	18,974
PM_{10}	7	20	38	75	186
$PM_{2.5}$	4	6	10	23	91

Source: http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf, October 2009.

As referenced, the nearest sensitive receptors to the project site abut the site to the east and south. For sensitive properties located less than 25 meters from an emission source, the 25-meter values are used to evaluate construction emissions relative to LST thresholds as stated in Chapter 3 of the SCAQMD *Final Significance Threshold Methodology* (Revised July 2008). As shown in Table 6, unmitigated on-site PM_{10} and $PM_{2.5}$ emissions during construction would exceed the LST thresholds shown in Table 5 at 25 meters during site preparation. Thus, without measures, in addition to watering twice daily per Rule 403 requirements, emissions would be **potentially significant** per thresholds (b) and (c) referenced above.

Table 6
Unmitigated Construction LST Emissions

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
Site Preparation	29.2	28.8	**8.9**	**5.08**
Grading	15.0	17.4	2.49	1.48
Building Construction – 2026	9.8	13.0	0.38	0.35
Building Construction – 2027	9.3	12.9	0.3	0.3
Architectural Coating	0.83	1.13	0.02	0.02
Paving - 2027	6.9	9.9	0.27	0.27
LST Thresholds – 2 acres	170	883	7	4
Exceeds LST Thresholds?	No	No	Yes	Yes

SRA-24: Perris Valley, assumes 2 acres disturbed daily during site preparation and grading.

Watering the active construction three times daily would reduce PM_{10} and $PM_{2.5}$ emissions during site preparation to 6.4 and 3.7 pounds daily, respectively, which would meet the LST thresholds for construction. This measure is included herein as Mitigation Measure AQ-1.

> **Mitigation Measure AQ-1.** During Site Preparation phase, water active construction areas at least three times daily to reduce PM_{10} and $PM_{2.5}$ emissions.

Operational Local Significance Thresholds. As stated, LSTs have been developed for both construction and operational scenarios and apply only to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_x, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway. Operational LSTs for a 5-acre site are shown below in Table 7 to reflect standards for the entire project site under build out conditions.

Table 7
SCAQMD LSTs for Operation

Pollutant	Allowable emissions as a function of receptor distance in meters from a five-acre site (lbs/day)				
	25	**50**	**100**	**200**	**500**
Gradual conversion of NO_x to NO_2	270	302	378	488	780
CO	1.577	2,178	3,437	6,860	22,530
PM_{10}	4	10	14	23	50
$PM_{2.5}$	2	3	4	8	26

Source: http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf, October 2009.

Table 8 shows area and energy source emissions estimated for project operation. As shown, none are projected to exceed the thresholds shown in Table 7 at 25 meters. This impact would be less than significant.

Table 8
Operational LST Emissions

Source	NOx	CO	PM_{10}	$PM_{2.5}$
Area	0.04	4.72	0.008	0.006
Energy	0.67	0.57	0.05	0.05
Total	**0.71**	**5.29**	**0.06**	**0.06**
LST Thresholds	270	1,577	4	2
Exceeds LST Thresholds?	**No**	**No**	**No**	**No**

SRA-24: Perris Valley, assumes 5-acre site at buildout.

Construction-Related Toxic Air Contaminant Impacts. The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed Project and truck traffic. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source

of toxic air contaminant emissions and related individual cancer risk. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

Operational Toxic Air Contaminant Emissions. A health risk assessment was prepared for the fueling station to determine whether sensitive properties located in proximity to the site would be at risk of adverse health effects associated with operation of the fueling station (see Appendix B). The analysis presented herein reflects a maximum annual throughout of approximately 2,400,000 gallons. Ultimate fuel throughput allowances/requirements would be established by the South Coast AQMD during the process of evaluating the fueling station Permit to Operate. For purposes of this evaluation, cancer risk estimates have been made consistent with the methodology presented in the South Coast AQMD's *Risk Assessment Procedures for Rules 1401, 1401.1 & 212* which provide screening-level risk estimates for gasoline dispensing operations.

As discussed previously, sensitive receptors in proximity to the project are single family residences located north, east and south of the site. The nearest sensitive receptors are the residential properties located approximately 145 feet (44 meters) south of the proposed gasoline canopy southern edge.

Based on the South Coast AQMD Risk Tool version 1.103 that implements the South Coast AQMD Risk Assessment Procedures for Rule 1401, 1401.1, and Rule 212 and Permit Application Package "N" Version 8.12, it is estimated that the potential cancer risk to sensitive and commercial receptors from the proposed gasoline dispensing station would be 4.4 in one million and 0.36 in one million, respectively. As stated in the Risk Assessment Procedures for Rules 1401, 1401.1 & 212, although gasoline vapors and its toxic air. contaminant constituents (for example, benzene, toluene, and xylene) have non-cancer impacts, the risks from retail gasoline dispensing facilities are dominated by cancer risk. Therefore, the chronic and acute non-cancer health risk do not need to be calculated. Potential health risks associated with operation of the proposed gasoline dispensing facility would be than 10 per 1,000,000; and thus, **less than significant.** No mitigation is required.

Disadvantaged Communities

With respect to the Community Air Protection Program (AB 617), each year CARB's Governing Board is required to consider selecting communities for participation in the Community Air Protection Program. Communities are selected for developing community air monitoring systems, emissions reduction programs, or both to improve air quality in their community. In 2020, the CARB Governing Board selected three new communities where these focused actions are underway (CARB, 2020). The City of Perris is not one of the selected communities and to date has not been nominated to participate in the Community Air Protection Program (CARB, 2023).

CalEnviroScreen is a general mapping tool developed by the Office Environmental Health Hazard Assessment to help identify California communities that are most affected by sources of pollution. The Project site and its immediately surrounding area to the north, east and south are not designated by CalEPA as being part of a disadvantaged community for the purpose of SB 535. SB 535 targets disadvantaged communities in California for investment of proceeds from the State's cap-and-trade program to improve public health, quality of life, and economic opportunity in California's most burdened communities, while also reducing pollution. The Project entails the development of multiple commercial buildings which would bring jobs and other economic opportunities to the local area without State assistance. The potential environmental effects of the Project are fully evaluated as part of the environmental review process, which includes this EIR, and feasible mitigation measures are identified for significant impacts that are within the City of Perris' jurisdictional authority to impose and enforce as required by CEQA and the State CEQA Guidelines. As indicated in the preceding analysis, the Project's construction and operational localized emissions would not exceed the South Coast AQMD's LST thresholds and the Project would not result in significant health impacts from diesel particulate matter emissions or operation of the proposed fueling station.

d. ***Would the project result in other emissions (such as those leading to odors) affecting a substantial number of people?***

Operational Odors

The State of California Health and Safety Code, Division 26, Part 4, Chapter 3, Section 41700, SCAQMD Rule 403, and City of Perris Municipal Code Section 19.44.070, commonly referred to as public nuisance law, prohibits emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from SCAQMD are evaluated by staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SCAQMD Rule 402 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that involves a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective by the nature of odors themselves and because measurements are difficult to quantify. As a result, this guideline is qualitative and focuses on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints. Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced

during construction would be attributable to exhaust emissions, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with other emissions (such as those leading to odors) adversely affecting a substantial number of people during construction would be less than significant.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities. The Project would involve the construction and operation of multiple commercial buildings including a grocery store, retail buildings, a convenience store/fueling station and three restaurants with related infrastructure improvements. During operation, the Project would be subject to South Coast AQMD Rule 1138 which addresses restaurant emissions, specifically from chain-driven char-broilers. Rule 1138 requires the use of a catalytic oxidizer control device to control odorous emissions. The proposed uses are not associated with emissions (such as those leading to odors) adversely affecting a substantial number of people that could rise to the level of significance. With the required compliance with South Coast AQMD Rule 1138, odors would be **less than significant** per threshold (d).

GREENHOUSE GAS EMISSIONS

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and sulfur hexafluoride (SF_6) (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2E), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, methane (CH_4) has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis (IPCC, 2014).

The largest source of GHG in California is transportation, contributing 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 15 percent of the state's GHG emissions. Residential and commercial sources contribute approximately 10 percent of the State's GHG emissions. California emissions result in part to its geographic size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. In July 2017, California's state legislature passed Assembly Bill (AB) 398 to reauthorize and extend until 2030 the state's economy-wide greenhouse gas (GHG) reduction program. California has established a goal to achieve carbon neutrality by 2045 or earlier.

California Regulations

In 2005, former Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 states that by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels (CalEPA, 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA, 2006). The 2006 CAT Report recommended various strategies that the state could pursue to reduce GHG emissions. These strategies could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture.

Assembly Bill 32 and CARB's Scoping Plan

To further the goals established in EO S-3-05, the Legislature passed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.
In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO_2E). CARB's adoption of this limit is in accordance with Health and Safety Code, Section 38550.

Further, in 2008, CARB adopted the Scoping Plan in accordance with Health and Safety Code, Section 38561. The Scoping Plan establishes an overall framework for the measures that will be

adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33%;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions;
2. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
3. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
4. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the Scoping Plan (CARB 2008), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020) absent GHG reducing laws and regulations (referred to as Business-As-Usual (BAU)). To calculate this percentage reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (CARB 2011a), CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the BAU conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (RPS) (12% to 20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the BAU conditions.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update; CARB 2014). The stated purpose of the First Update is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for

establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050" (CARB 2014). The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050" (CARB 2014). Those six areas are (1) energy, (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), (3) agriculture, (4) water, (5) waste management, and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal (CARB 2014).

Based on CARB's research efforts presented in the First Update, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050" (CARB 2014). Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2E) and the revised 2020-emissions-level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the BAU conditions (CARB 2014).

In January 2017, CARB released, *The 2017 Climate Change Scoping Plan Update (*Second Update; CARB 2017b), for public review and comment. This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed below), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017), acknowledges the need for reducing emissions in agriculture, and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy, and Transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2016). The Second Update has not been considered by CARB's Governing Board at the time this analysis was prepared.

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates that a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for California to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. 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 (i.e., Climate Action Plan) consistent with CEQA Guidelines Section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan intends to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place. Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) focused on providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the targets set forth in the 2022 Scoping Plan. The 2022 Scoping Plan also 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 residential and mixed-use development to determine consistency with the 2022 Scoping Plan. These approaches are recommendations only and are not requirements. They do not supplant lead agencies' discretion to develop their own evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.

Other regulations affecting state and local GHG planning and policy development are summarized as follows:

Assembly Bill 939 and Senate Bill 1374
Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Senate Bill 1368

Senate Bill 1368 (SB 1368) is the companion Bill of AB 32 and was adopted September, 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007 and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission (CPUC) and California Energy Commission (CEC).

Senate Bill 97

SB 97 was adopted August 2007 and acknowledges that climate change is an environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010. Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA Guidelines that address GHG emissions. The State CEQA Guidelines Amendments changed sections of the State CEQA Guidelines and incorporated GHG language throughout the State CEQA Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

1. Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.

2. Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

3. When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.

4. New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.

5. OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."

6. OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.

7. Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09
Senate Bill 1078 (SB 1078) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

California Code of Regulations (CCR) Title 24, Part 6
CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established 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 efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. All buildings for which an application for a building permit is submitted on or after July 1, 2014 must follow the 2013 standards. The 2013 commercial standards are estimated to be 30 percent more efficient than the 2008 standards; 2013 residential standards are at least 25 percent more efficient. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Senate Bill 375
Senate Bill 375 (SB 375) was adopted in September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each

MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable community's strategy or alternate planning strategy for consistency with its assigned targets.

The City of Perris is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the sustainable communities strategy or alternate planning strategy. For the SCAG region, beginning October 2018, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. Adopted by SCAG in April 2024, Connect SoCal is a long-term plan for Southern California that includes investments in transportation, housing, and climate change. Implementation of the plan is intended to improve access to jobs and opportunities in underserved communities The Housing Element Update is required by the State to be completed within 18 months after regional transportation plan / sustainable communities strategy adoption.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, CEQA incentivizes, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. Additionally, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Title 24 California Green Building Standards Code

The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The CALGreen Code also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may

adopt which encourage or require additional measures in the five green building topics. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements, stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

The CEC adopted the 2022 CALGreen Code in December 2021, went into effect on January 1, 2023. The 2022 CALGreen code focuses on battery storage system controls, demand management, heat pump space and water heating, and building electrification.

Title 20

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO2E. EO B-30-15 also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills that set new statewide GHG reduction targets, make changes to CARB's membership, increase legislative oversight of CARB's climate

change–based activities, and expand dissemination of GHG and other air quality–related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

SB 350— Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent 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:

1. Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
2. Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly-owned utilities.
3. Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

SB 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18
On September 10, 2018, Governor Brown signed Executive Order B-55-2018 which established a new statewide goal to achieve carbon neutrality as soon as possible and no later than 2045. The executive order also states that California will achieve and maintain net negative emissions thereafter.

AB 2127
AB 2127 promotes better planning for EV infrastructure build-out across all vehicle classes. AB 2127 would help the state meet the goal of 5 million zero-emission vehicles (ZEV) on the road by 2030.

Local Regulations

South Coast Air Quality Management District. The SCAQMD only has authority over GHG emissions from development projects that include air quality permits. If the project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

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.

Western Riverside Council of Governments. In September 2014, the Western Riverside Council of Governments (WRCOG) completed the Subregional Climate Action Plan (Subregional CAP). The Subregional CAP is a joint effort by twelve cities in the subregion which establishes emissions reduction targets, emissions reduction measures, and action steps to assist each community to demonstrate consistency AB 32 (WRCOG 2014). The City was a participating agency in developing the Subregional CAP, and has adopted a local CAP based on the Subregional CAP as addressed below.

City of Perris. The City of Perris CAP was adopted by the City Council on February 23, 2016. The CAP was developed to address global climate change through the reduction of GHG emissions at the community level, and as part of California's mandated statewide GHG emissions reduction goals under AB 32. The CAP, including the GHG inventories and forecasts contained therein, is based on the WRCOG Subregional CAP. The City of Perris CAP utilized the analyses in the Subregional CAP addressing existing GHG reduction programs and policies that have already been implemented in the subregion and applicable best practices from other

regions to assist in meeting the 2020 subregional reduction target. The CAP contains community wide GHG emissions reduction targets of 15 percent below 2010 levels by 2020, and 47.5 percent below 2010 levels by 2035 (City of Perris, 2016).

CLIMATE CHANGE IMPACT ANALYSIS

Thresholds of Significance

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions in March 2010. These guidelines are used in evaluating the cumulative significance of GHG emissions from the proposed project. According to the adopted State CEQA Guidelines, impacts related to GHG emissions from the proposed project would be significant if the project would:

a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*

b. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon "threshold of significance" by which to measure an impact. While CARB published draft thresholds in 2008, they were never adopted, and CARB recommended that local air districts and lead agencies adopt their own thresholds for GHG impacts. Instead, the determination of significance is governed by State CEQA Guidelines 15064.4, entitled "Determining the Significance of Impacts from Greenhouse Gas Emissions." State CEQA Guidelines 15064.4(a) states, "[t]he determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, what threshold(s) should be used to qualitatively and quantitatively determine the significance of a project impact. Therefore, consistent with State CEQA Guidelines 15064.4, the GHG analysis for the project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular project.

The SCAQMD has been evaluating GHG significance thresholds since April 2008. On December 5, 2008, the SCAQMD Governing Board adopted an Interim CEQA Greenhouse Gas Significance Threshold of 10,000 metric tons CO2E per year for stationary source/industrial projects for which the SCAQMD is the lead agency.. The policy objective of the SCAQMD's interim threshold is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent 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 percent 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 one percent of the future 2050 statewide GHG emissions target.

The SCAQMD has continued to consider then adoption of significance thresholds for projects where the SCAMD is not the lead agency. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses:

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearings and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 metric tons CO2E/year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 metric tons CO2E/year), commercial projects (1,400 metric tons CO2E/year), and mixed-use projects (3,000 metric tons CO2E/year). Under option 2 a single numerical screening threshold of 3,000 metric tons CO2E/year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions by 2020 and 2035. The 2020 efficiency targets are 4.8 metric tons CO2E per service population for project level analyses and 6.6 metric tons CO2E per service population for plan level analyses. The 2035 targets that reduce emissions to 40 percent below 1990 levels are 3.0 metric tons CO2E per service population for project level analyses and 4.1 metric tons CO2E per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels. The thresholds identified above have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The only The future schedule and likelihood of threshold adoption is uncertain. If CARB adopts statewide significance thresholds, SCAQMD staff plan to report back to the SCAQMD Governing Board regarding any recommended changes or of additions to the

SCAQMD's interim threshold. The only update to the SCAQMD's GHG thresholds since 2010 is that the 10,000 metric tons CO2E/yr threshold for industrial projects is now included in the SCAQMD's March 2023 South Coast AQMD Air Quality Significance Thresholds document that is published for use by local agencies. In the absence of other thresholds of significance adopted by the South Coast AQMD, the City of Perris has been using the 10,000 metric tons of CO_2e per year threshold of significance for industrial/warehouse projects and the draft thresholds for mixed-use and non-industrial projects for the purpose of evaluating impacts with respect to project-level GHG emissions. Because the proposed Project would be comprised of commercial uses, the City's use of the 3,000 metric tons of CO_2e threshold for the proposed Project considered appropriate.

Methodology

The California Emission Estimator Model (CalEEMod) version 2022.1 was used to estimate GHG emissions during the construction and operation of the proposed project. Based on the construction schedule, types and quantities of construction equipment, and haul trucks, as well as employee trips, daily truck trips and area and energy sources associate with operation of the building, the maximum annual CO_2e emissions were calculated. The GHG emissions for each construction year are compared with SCAQMD's GHG screening threshold summarized below.

Construction Emissions

Construction of the proposed project would generate temporary GHG emissions primarily associated with the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest emission quantities because the use of heavy equipment is greatest during this phase of construction. Emissions associated with the construction period were estimated based on the projected maximum amount of equipment that would be used onsite at one time. Air districts such as the SCAQMD have recommended amortizing construction-related emissions over a 30-year period to calculate annual emissions. Complete CalEEMod results and assumptions can be viewed in the Appendix.

Operational Emissions

Default values used in CalEEMod version 2022.1 are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod provides operational emissions of CO_2, N_2O and CH_4. This methodology has been subjected to peer review by numerous public and private stakeholders, and in particular by the CEC; and therefore, is considered reasonable and reliable for use in GHG impact analysis pursuant to CEQA. It is also recommended by CAPCOA (January 2008).

Emissions associated with area sources (i.e., consumer products, landscape maintenance, and architectural coating) were calculated in CalEEMod based on standard emission rates from CARB,

USEPA, and district supplied emission factor values (CalEEMod User Guide, May 2021). Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide, May 2021). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California. Emissions from mobile sources were quantified based on trip generation estimates provided by the applicant.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Estimate of GHG Emissions

Construction Emissions

Construction activity is assumed to begin in early 2026 and conclude in 2027. Based on CalEEMod results, construction activity for the project would generate an estimated 464 metric tons of CO_2, as shown in Table 9. Amortized over a 30-year period (the assumed life of the project), construction of the proposed project would generate 15 metric tons of CO_2E per year.

Operational Indirect and Stationary Direct Emissions

Long-term emissions relate to energy use, solid waste, water use, and transportation. Each source is discussed below and includes anticipated emissions that would result from the proposed project.

Table 9
Estimated Construction Related Greenhouse Gas Emissions

Year	Annual Emissions (metric tons CO_2E)
2026	407
2027	57
Total	**464**
Amortized over 30 years	**15 metric tons per year**

See Appendix for CalEEMod software program output for new construction.

Energy Use. Operation of onsite development would consume both electricity and natural gas (see Appendix for CalEEMod results). The generation of electricity through combustion of fossil fuels typically yields CO_2, and to a smaller extent, nitrous oxide and methane. Natural gas emissions also generate GHG emissions. As shown in Table 10, the overall energy use at the Project site would result in approximately 1,022 metric tons of CO_2e per year.

Water Use Emissions**.** The CalEEMod results estimate that the Project would use approximately 14,616,706 million gallons of water per year. Based on the amount of electricity generated to supply and convey this amount of water, as shown in Table 11, the Project would generate approximately 44 metric tons of CO_2e per year.

Solid Waste Emissions. For solid waste generated onsite, the Project is required to achieve a 75% diversion rate, as required by the California Integrated Waste Management Act of 1989 (AB 939), as amended by AB 341. The modeling results indicate that the Project would result in approximately 200 metric tons of CO_2e per year associated with solid waste disposed within landfills (assuming no diversion) (see Table 4.2-3). (see Table 11).

Table 10
Estimated Annual Energy-Related Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Natural Gas	133 metric tons
Electricity	889 metric tons
Total	**1,022 metric tons**

See Appendix for CalEEMod software program output.

Table 11
Estimated Annual
Solid Waste and Water Use Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Water	44 metric tons
Solid Waste	200 metric tons
Total Water and Solid Waste	**244 metric tons**

See Appendix for CalEEMod software program output.

Area Sources and Refrigerants. Area Sources consist of emissions from hearths, consumer products, architectural coatings, and landscaping equipment. Refrigerant emissions estimate the fugitive GHG emissions associated with building air conditioning (A/C) and refrigeration equipment. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant

the equipment contains), operational and service refrigerant leak rates (from regular operation and routine servicing), and number of times serviced per lifetime. Each refrigerant has a Global Warming Potential that is specific to that refrigerant. CalEEMod generates a default A/C and refrigeration equipment inventory for each project based on land use subtype. As shown in Table 12, the Project would generate approximately 3,484 metric tons per year CO_2e of area and refrigerant emissions.

Table 12
Estimated Annual
Area Source and Refrigerant Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Area	2 metric tons
Refrigerants	3,482 metric tons
Total Area and Refrigerants	**3,484 metric tons**

See Appendix for CalEEMod software program output.

Transportation Emissions. Mobile source GHG emissions were estimated by CalEEMod for the proposed Project. Table 13 shows the estimated mobile emissions of GHGs for the project. As shown in Table 13, the project would generate approximately 11,146 metric tons of CO_2E associated with mobile sources.

Table 13
Estimated Annual Mobile Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2E)
Mobile Emissions	11,146 metric tons
Total	**11,146 metric tons**

See Appendix for CalEEMod software program output.

Combined Construction, Stationary and Mobile Source Emissions

Table 14 combines the net new construction, operational, and mobile GHG emissions associated with the proposed project. As discussed above, temporary emissions associated with construction activity are amortized over 30 years (the anticipated life of the Project). The combined annual emissions would total approximately 15,911 metric tons per year in CO_2e. The Project would exceed the 3,000 MT CO_2e annual standard.

Table 14
Combined Annual Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)

Construction	15 metric tons
Operational	
Energy	1,022 metric tons
Solid Waste	200 metric tons
Water	44 metric tons
Area Sources and Refrigerants	3,484 metric tons
Mobile	11,146 metric tons
Total	**15,911 metric tons**

See Appendix for CalEEMod software program output.

As stated, the Project would exceed the 3,000 MT CO_{2e} standard which would be considered a significant impact per threshold a. The following mitigation measures would be implemented as applicable to reduce the Project's GHG emissions.

Mitigation Measure GHG-1 Prior to the issuance of each building permit, the Project Applicant and its contractors shall provide plans and specifications to the City of Perris Building Division that demonstrate that electrical service is provided to each of the areas in the vicinity of all buildings that are to be landscaped in order that electrical equipment may be used for landscape maintenance.

Mitigation Measure GHG-2 All landscaping equipment (e.g., leaf blower) used for property management shall be electric-powered only. The property manager/facility owner for all buildings constructed shall provide documentation (e.g., purchase, rental, and/or services agreement) to the City of Perris Building Division to verify, to the City's satisfaction, that all landscaping equipment utilized will be electric-powered.

Mitigation Measure GHG-3 Tenants who employ 250 or more full or part-time employees shall comply with South Coast AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. The purpose of this rule is to provide employees with a menu of options to reduce employee commute vehicle emissions. Tenants with less than 250 employees or tenants with 250 or more employees who are exempt from South Coast AQMD Rule 2202 (as stated in the Rule) shall either (a) join with a tenant who is implementing a program in accordance with Rule 2202 or (b) implement an emission reduction program similar to Rule 2202 with annual reporting of actions and results to the City of Perris. The tenant-implemented program shall include, but not be limited to the following:

- Appoint a Transportation Demand Management (TDM) coordinator who will promote the TDM program, activities and features to all employees;
- Create and maintain a "commuter club" to manage subsidies or incentives for employees who carpool, vanpool, bicycle, walk, or take transit to work;

- Inform employees of public transit and commuting services available to them (e.g., social media, signage);

- Provide on-site transit pass sales and discounted transit passes;
- Guarantee a ride home;

- Offer shuttle service to and from public transit and commercial areas/food establishments, if warranted;

- Coordinate with the Riverside Transit Agency and employers in the surrounding area to maximize the benefits of the TDM program; and

- Implement a commute trip reduction program to provide employees assistance in using alternative modes of travel and provide incentives to encourage employee usage. The commute trip reduction program will be a multi-strategy program that could include the following individual measures:

    a. Carpooling encouragement;
    b. Ride-matching assistance;
    c. Preferential carpool parking;
    d. Flexible work schedules for carpools;
    e. Half-time transportation coordinator;
    f. New employee orientation of trip reduction and alternative travel mode options;
    g. Vanpool assistance; and
    h. Bicycle end-trip facilities (parking and lockers).

Mitigation Measure GHG-4 Prior to the issuance of a building permit for the supermarket, the Project Applicant shall provide evidence to the City of Perris Building Division that the loading dock is designed to be compatible with SmartWay trucks.

Mitigation Measure GHG-5 Prior to issuance of a building permit, the Project Applicant shall provide the City of Perris Building Division with project specifications, drawings, and calculations that demonstrate that main electrical supply lines and panels at the supermarket loading dock have been sized to support heavy truck charging facilities when these trucks become available. The calculations shall be based on reasonable predictions from currently available truck manufacturer's data. Electrical system upgrades that exceed reasonable costs shall not be required.

Mitigation Measure GHG-6 The buildings shall be constructed as certified LEED Silver Level and implement the following, voluntary provisions of the California Green Building Standards Code (CALGreen). The Project Applicant/developer(s) shall provide documentation (e.g., building plans) of implementation of the

applicable voluntary measures to the City of Perris Building Division prior to the issuance of building permits.

- Design the proposed parking areas to provide parking for low-emitting, fuel-efficient, and carpool/van vehicles. At minimum, the number of preferential parking spaces shall equal the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.1.2;

- Design the proposed parking areas to provide electric vehicle (EV) charging stations. At minimum, the number of EV charging stations shall equal the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2; and.

- Plant trees in excess of the number required per landscaping standards for commercial and industrial uses or identify, with assistance from City staff, areas (i.e., parks and open space) within the City of Perris where additional trees could be planted.

The mitigation measures listed above that are available in the CalEEMod software and applicable to the proposed Project were incorporated into the model to determine the GHG emission reduction benefits. With implementation of mitigation, the GHG emissions associated with operation of the proposed Project would be reduced by 185 metric tons, or 1.16 percent, annually.

With implementation of mitigation measures required by the City of Perris to reduce GHG emissions from commercial projects, the Project's cumulative GHG emissions impacts would be reduced but remain **significant and unavoidable.**

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Consistency with Plans and Policies to Reduce Greenhouse Gas Emissions

As stated, pursuant to Section 15604.4 of the State CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. Thus, the Project's consistency with SB 32 (CARB 2017 and 2022 Scoping Plans), Connect SoCal 2024, and the City of Perris CAP is discussed below. Project consistency with the 2017 and 2022 Scoping Plan also satisfies consistency with AB 32 because the Scoping Plans are based on the overall targets established by AB 32.

Connect SoCal 2024 Consistency
Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG emission reduction goals and federal

Clean Air Act requirements. The Project would be developed within a CC zone in the City of Perris and utilize the existing street network. The Project would not conflict with plans to integrate the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project would be consistent with or otherwise would not conflict with any of the goals identified in *Connect SoCal*.

City of Perris Climate Action Plan Consistency

The City of Perris adopted its CAP in February 2016. The measures identified in the CAP represent the City's actions to achieve the GHG reduction targets of AB 32 for target year 2020. Local measures incorporated in the CAP include:

- An energy measure that directs the City to create an energy action plan to reduce energy consumption citywide;

- Land use and transportation measures that encourage alternative modes of transportation (walking, biking, and transit), reduce motor vehicle use by allowing a reduction in parking supply, voluntary transportation demand management to reduce vehicle miles traveled, and land use strategies that improve jobs-housing balance (increased density and mixed-use);

- Solid waste measures that reduce landfilled solid waste in the City.

The Project would comply with the CAP through compliance with Project-level air quality mitigation measures referenced above which would lessen Project GHG emissions from both construction and operation. The Project would not conflict with local strategies and state/regional strategies listed in the Perris CAP.

Further, the Project is subject to California Building Code requirements. New buildings must achieve the 2022 Building and Energy Efficiency Standards and the 2022 CALGreen Code building standards requirements, which include energy conservation measures and solid waste reduction measures. While the Project does not include reduced parking, increased density, or a mixed-use development, it would provide sidewalks, bike racks, and pedestrian walkways to encourage the use of alternative modes of transportation (walking, biking, and transit). The Project would not conflict with applicable GHG reduction measures in the CAP and impacts would be less than significant.

The Project would be required to comply with applicable provisions of Title 24 Energy Efficiency Standards and California Green Building Standards. As previously identified, the State Building Code provides the minimum standard that buildings must meet to be certified for occupancy, and adherence to these requirements is confirmed by the City during the respective Project approvals.

SB 32/2017 Scoping Plan Consistency

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction in GHG emissions below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 15, 2017 Scoping Plan Consistency Summary, summarizes the Project's consistency with the 2017 Scoping Plan. As stated, the Project would not conflict with any of the Scoping Plan actions.

Table 15
2017 SCOPING PLAN CONSISTENCY SUMMARY

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	California Public Utilities Commission, California Energy Commission, CARB	**No Conflict.** The Project would obtain electricity from Southern California Edison (SCE). SCE has committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**No Conflict.** The Project would be constructed in compliance with current California Building Code requirements including the 2022 Building and Energy Efficiency Standards and the 2022 CALGreen Code requirements.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plugin hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency, Strategic Growth Council, California Department of Transportation (Caltrans), California Energy Commission, OPR, local agencies	**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project must comply with the standards as applicable; and thus, would comply with the strategy.
At least 4.2 million zero emission and plugin hybrid light-duty EVs by 2030.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets.

2017 SCOPING PLAN CONSISTENCY SUMMARY

Action	Responsible Parties	Consistency
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOx standard.		**Not applicable.** This measure is not related to the Project scope.
Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes zero-emission vehicles comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		**No Conflict.** As stated in Section XVII of the Initial Study, the Project's VMT impact would be considered less than significant based on the City of Perris thresholds of significance.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**No Conflict.** Average daily emissions would exceed annual GHG emission standards for commercial sources; however, it would not otherwise conflict with GHG reduction efforts.

2017 SCOPING PLAN CONSISTENCY SUMMARY

Action	Responsible Parties	Consistency
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	California State Transportation Agency, Strategic Growth Council, OPR, CARB, Governor's Office of Business and Economic Development, California Infrastructure and Economic Development Bank, Department of Finance, California Transportation Commission, Caltrans	**No Conflict.** The Project would not conflict with use of adjacent streets by pedestrians or bicycles. Further, transit services provided by Riverside Transit Agency in the greater Perris area would not be affected.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	California State Transportation Agency, Caltrans, California Transportation Commission, OPR, Strategic Growth Council, CARB	**Not applicable**. This measure is not related to the Project scope.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	California State Transportation Agency, CalEPA, California Natural Resources Agency, CARB, Caltrans, California Energy Commission, Governor's Office of Business and Economic Development	**No Conflict.** This measure would apply to all trucks accessing the Project site. It is presumed that these vehicles would be part of the statewide goods movement sector and limited to delivery vehicles. Access to the Project site would be provided from Placentia Avenue which is a designated truck route.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near zero emission freight vehicles and equipment powered by renewable energy by 2030.		**Not applicable.** This measure is unrelated to the Project scope.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	**No Conflict.** When adopted, this measure would apply to all fuel purchased for use in California. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, California State Water Resource Control Board (SWRCB), local air districts	**Not applicable.** This measure is unrelated to the Project scope.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Not applicable.** This measure is unrelated to the Project scope.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink:		
Protect land from conversion through conservation easements and other incentives.	California Natural Resources Agency, departments within the	**Not applicable**. The Project site is not an identified property that needs to be conserved.

2017 SCOPING PLAN CONSISTENCY SUMMARY

Action	Responsible Parties	Consistency
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity	California Department of Food and Agriculture, CalEPA, CARB	**No Conflict**. The Project site is zoned for development. It is not intended to be preserved. Resilience of carbon storage in open space land in the Perris area would not be affected.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		**No Conflict.** To the extent appropriate for the proposed buildings, wood products would be used in construction, including roof structure. Additionally, the Project includes landscaping.
Establish scenario projections to serve as the foundation for the Implementation Plan		**Not applicable.** This measure is unrelated to the Project scope.
Implement Forest Carbon Plan	California Natural Resources Agency, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and departments within	**Not applicable.** This measure is unrelated to the Project scope.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State agencies & local agencies	**Not applicable.** This measure is unrelated to the Project scope.

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	**No Conflict.** The Project would obtain electricity from Southern California Edison (SCE). SCE has committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**No Conflict.** The Project would be constructed in compliance with current California Building Code requirements including the 2022 Building and Energy Efficiency Standards and the 2022 CALGreen Code requirements.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		

At least 1.5 million zero emission and plugin hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project must comply with the standards as applicable; and thus, would comply with the strategy.
At least 4.2 million zero emission and plugin hybrid light-duty EVs by 2030.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.		**Not applicable.** This measure is not related to the Project scope.
Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT		**No Conflict.** As stated in Section XVII of the Initial Study, the Project's VMT impact would be considered less than significant based on the City of Perris thresholds of significance.

Reduction Strategies for Discussion."		
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**No Conflict.** Average daily emissions would exceed daily South Coast AQMD GHG emission standards for commercial sources; however, it would not otherwise conflict with GHG reduction efforts;
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GOBiz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	**No Conflict.** The Project would not conflict with use of adjacent streets by pedestrians or bicycles. Further, transit services provided by Riverside Transit Agency in the greater Perris area would not be affected.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	**Not applicable**. This measure is not related to the project scope.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	**No Conflict.** This measure would apply to all trucks accessing the Project site. It is presumed that these vehicles would be part of the statewide goods movement sector and limited to delivery vehicles. Access to the Project site would be provided from Placentia Avenue which is a designated truck route.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near zero emission freight vehicles and equipment powered by renewable energy by 2030.		**Not applicable.** This measure is unrelated to the Project scope.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	**No Conflict.** When adopted, this measure would apply to all fuel purchased for use in California. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, California State Water Resource Control Board (SWRCB), Local Air Districts	**Not applicable.** This measure is unrelated to the Project scope.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Not applicable.** This measure is unrelated to the Project scope.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink:		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	**Not applicable**. The Project site is not an identified property that needs to be conserved.

Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		**No Conflict**. The site is zoned for development. It is not intended to be preserved. Resilience of carbon storage in open space land in the Perris area would not be affected.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		**No Conflict.** To the extent appropriate for the proposed buildings, wood products would be used in construction, including roof structure. Additionally, the Project includes landscaping.
Establish scenario projections to serve as the foundation for the Implementation Plan		**Not applicable.** This measure is unrelated to the project scope.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	**Not applicable.** This measure is unrelated to the Project scope.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	**Not applicable.** This measure is unrelated to the Project scope.

2022 Scoping Plan Consistency

CARB's 2022 Scoping Plan sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. The 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. 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 (i.e., Climate Action Plan) consistent with State CEQA Guidelines Section 15183.5. Statewide strategies to reduce GHG emissions in the latest 2022 Scoping Plan include implementing SB 100, which would achieve 100 percent clean electricity by 2045; achieving 100 percent zero emission vehicle sales in 2035 through Advanced Clean Cars II; and implementing the Advanced Clean Fleets regulation to deploy ZEV buses and trucks. Additional transportation policies include the Off-Road Zero Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel Fueled Fleets Regulation, Clean Off-Road Fleet Recognition Program, and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation.

The 2022 Scoping Plan would continue to implement SB 375. GHGs would be further reduced through the Cap-and-Trade Program carbon pricing and SB 905. SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon dioxide removal projects and technology. As indicated above, GHG reductions are also achieved as a result of State of California energy and water efficiency requirements for new residential development. These efficiency improvements correspond to reductions in secondary GHG emissions. For example, in California, most of the electricity that powers homes is derived from natural gas combustion. Therefore, energy saving measures, such as Title 24,

reduces GHG emissions from the power generation facilities by reducing load demand. The 2022 Scoping Plan Appendix D provides local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. The 2022 Scoping Plan Appendix D focuses on Residential and Mixed-Use Projects. The 2022 Scoping Plan Appendix D lists potential actions that support the State's climate goals. However, the 2022 Scoping Plan notes that the applicability and performance of the actions may vary across the regions. The document is organized into two categories (A) examples of plan-level GHG reduction actions that could be implemented by local governments and (B) examples of on-site project design features, mitigation measures, that could be required of individual projects under CEQA, if feasible, when the local jurisdiction is the lead agency.

The Project would include a number of the Standard Conditions and mitigation measures for construction and operation. For example, the 2022 Scoping Plan's construction actions include enforcing idling time restrictions on construction vehicles and requiring construction vehicles to operate highest tier engines commercially available. The Project would include a majority of the feasible operational mitigation measures listed in the 2022 Scoping Plan Appendix D as design features. Some of the recommended operational measures would include providing bicycle parking, creating on- and off-site safety improvements for bike, pedestrian, and transit connections, requiring solar panels, drought-tolerant landscaping, and energy conserving appliances. As discussed above, the Project would be consistent with all applicable plan goals and applicable regulatory programs designed to reduce GHG emissions generated by land use projects. The Project would be subject to compliance with all building codes in effect at the time of construction, which include energy conservation measures mandated by California Building Standards Code Title 24 – Energy Efficiency Standards. Because Title 24 standards require energy conservation features in new construction (e.g., high- efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures), they indirectly regulate and reduce GHG emissions. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. As shown above, energy and mobile sources are primary contributors to overall GHG emissions that would be further reduced by the 2022 Scoping Plan actions described above. The City has no control over vehicle emissions; however, these emissions would decline in the future because of Statewide measures as well as cleaner technology and fleet turnover. Many State plans and policies would contribute to a reduction in the Project's mobile source emissions, including the following:

CARB's Advanced Clean Truck Regulation: Adopted in June 2020, CARB's Advanced Clean Truck Regulation requires truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8.

Executive Order N-79-20: Executive Order N-79-20 establishes the goal for all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, to be zero-emission by 2035 and all medium and heavy-duty vehicles to be zero-

emission by 2045. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new ZEVs "towards the target of 100 percent."

CARB's Mobile Source Strategy: CARB's Mobile Source Strategy takes an integrated planning approach to identify the level of transition to cleaner mobile source technologies needed to achieve all of California's targets by increasing the adoption of ZEV buses and trucks.

CARB's Sustainable Freight Action Plan: The Sustainable Freight Action Plan which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks. This Plan applies to all trucks accessing the Project site and may include existing trucks or new trucks that are part of the Statewide goods movement sector.

CARB's Emissions Reduction Plan for Ports and Goods Movement: CARB's Emissions Reduction Plan for Ports and Goods Movement identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are not directly applicable to the Project, any commercial activity associated with goods movement would be required to comply with these measures as adopted.

The Project would not obstruct or interfere with efforts to increase ZEVs or State efforts to improve system efficiency. Compliance with applicable State standards (e.g., continuation of the Cap-and-Trade regulation; CARB's Mobile Source Strategy, Sustainable Freight Action Plan, and Advanced Clean Truck Regulation; Executive Order N-79-20; SB 100/renewable electricity portfolio improvements that require 60 percent renewable electricity by 2030 and 100 percent renewable by 2045, etc.) would ensure consistency with State and regional GHG reduction planning efforts, including the 2022 Scoping Plan. It is also noted that the Project would not convert any Natural and Working Lands (NWL) and/or decrease the State's urban forest carbon stock, which are areas of emphasis in the 2022 Scoping Plan.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that Project operations would benefit from applicable measures enacted to meet State GHG reduction goals. 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. Thus, impacts related to consistency with the 2022 Scoping Plan would be less than significant. The Project would not conflict with the applicable plans and regulatory programs that are discussed above; and therefore, with respect to this particular threshold, the Project impact would be less than significant.

REFERENCES

California Natural Resources Agency. *2023 California Environmental Quality Act (CEQA) Statute and Guidelines*. Association of Environmental Professionals. 2023

California Air Pollution Control Officers Association. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA)*. January 2008.

California Air Pollution Control Officers Association. *California Emission Estimator Model version 2022.1.1.16*, May 2022.

California Air Resources Board. *Ambient Air Quality Standards.* Updated February 2016. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf

California Air Resources Board. 2019, 2020, & 2021 Annual Air Quality Data Summaries. http://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed December 2022.

California Air Resources Board. June 2019. *Greenhouse Gas Inventory Data Inventory Program*. Available: https://www.arb.ca.gov/cc/inventory/inventory.htm

California Air Resources Board. April 2012. *Greenhouse Gas Inventory Data – 2020 Emissions Forecast*. Available: http://www.arb.ca.gov/cc/inventory/data/forecast.htm

California Air Resources Board. May 2014. *2020 Business As Usual Emission Projection, 2014 Edition*. Available: http://www.arb.ca.gov/cc/inventory/data/tables/2020_bau_forecast_by_scoping_category_2014-05-22.pdf

California Air Resources Board. April 2005. *Air Quality and Land Use Handbook, A Community Health Perspective*. https://ww3.arb.ca.gov/ch/handbook.pdf

California Climate Action Registry General Reporting Protocol, *Reporting Entity-Wide Greenhouse Gas Emissions*, Version 3.1, January 2009.

California Environmental Protection Agency, March 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF

Intergovernmental Panel on Climate Change [IPCC]. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. [Kroeze, C.; Mosier, A.; Nevison, C.; Oenema, O.; Seitzinger, S.; Cleemput, O. van; Conrad, R.; Mitra, A.P.; H.U., Neue; Sass, R.]. Paris: OECD, 1997.

Mizuta Traffic Consulting, Inc., *Trip Generation Memorandum and Vehicle Miles Traveled Memorandum for the proposed Vallarta Market Place Community Shopping Center Project* October 2024.

Office of the California Attorney General. The California Environmental Quality Act, Addressing Global Warming Impacts at the Local Agency Level. Updated May 21, 2008. http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf

SCAQMD. *Air Quality Significance Threshold*, March 2023

SCAQMD. *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. 2011

SCAQMD. *Final Localized Significant (LST) Thresholds Methodology, (revised July 2008)*.

United States Environmental Protection Agency (U.S. EPA). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018*. U. S. EPA #430-R-20-002. April 2020. https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf

Western Riverside Council of Governments, Subregional Climate Action Plan, September 2014. https://wrcog.us/DocumentCenter/View/188/Subregional-Climate-Action-Plan-CAP-PDF?bidId=

Appendix A

CalEEMod Air Quality and Greenhouse Gas Emissions Model Results – Summer/Annual Emissions

Perris Vallarta Commercial Shopping Center Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Vallarta Commercial Shopping Center
Construction Start Date	1/5/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.82167504510092, -117.2250472065759
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5501
EDFZ	11
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
Supermarket	96.5	1000sqft	2.21	96,484	11,578	—	—	—

Convenience Market with Gas Pumps	4.91	1000sqft	0.11	4,913	590	—	—	—
Fast Food Restaurant with Drive Thru	4.70	1000sqft	0.11	4,700	564	—	—	—
Parking Lot	489	Space	4.40	0.00	500	—	—	—
Fast Food Restaurant with Drive Thru	2.37	1000sqft	0.05	2,367	284	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Transportation	T-10	Provide End-of-Trip Bicycle Facilities
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.23	10.6	15.7	0.03	0.39	0.62	1.00	0.36	0.15	0.51	—	3,421	3,421	0.13	0.12	3.12	3,463
Mit.	1.23	10.6	15.7	0.03	0.39	0.62	1.00	0.36	0.15	0.51	—	3,421	3,421	0.13	0.12	3.12	3,463
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	45.4	29.2	29.8	0.05	1.24	7.89	9.14	1.14	3.99	5.14	—	5,520	5,520	0.22	0.12	0.08	5,541
Mit.	45.4	29.2	29.8	0.05	1.24	7.89	9.14	1.14	3.99	5.14	—	5,520	5,520	0.22	0.12	0.08	5,541
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.07	8.75	11.5	0.02	0.33	0.73	1.07	0.31	0.27	0.58	—	2,431	2,431	0.09	0.07	0.80	2,456
Mit.	3.07	8.75	11.5	0.02	0.33	0.73	1.07	0.31	0.27	0.58	—	2,431	2,431	0.09	0.07	0.80	2,456
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.56	1.60	2.09	< 0.005	0.06	0.13	0.19	0.06	0.05	0.11	—	403	403	0.01	0.01	0.13	407
Mit.	0.56	1.60	2.09	< 0.005	0.06	0.13	0.19	0.06	0.05	0.11	—	403	403	0.01	0.01	0.13	407
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.23	10.6	15.7	0.03	0.39	0.62	1.00	0.36	0.15	0.51	—	3,421	3,421	0.13	0.12	3.12	3,463
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.21	29.2	29.8	0.05	1.24	7.89	9.14	1.14	3.99	5.14	—	5,520	5,520	0.22	0.12	0.08	5,541

2027	45.4	11.0	16.4	0.03	0.36	0.71	1.07	0.34	0.17	0.51	—	3,585	3,585	0.12	0.12	0.08	3,624
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	8.75	11.5	0.02	0.33	0.73	1.07	0.31	0.27	0.58	—	2,431	2,431	0.09	0.07	0.80	2,456
2027	3.07	1.13	1.71	< 0.005	0.04	0.06	0.10	0.04	0.01	0.05	—	339	339	0.01	0.01	0.11	342
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.18	1.60	2.09	< 0.005	0.06	0.13	0.19	0.06	0.05	0.11	—	403	403	0.01	0.01	0.13	407
2027	0.56	0.21	0.31	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	56.1	56.1	< 0.005	< 0.005	0.02	56.6

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.23	10.6	15.7	0.03	0.39	0.62	1.00	0.36	0.15	0.51	—	3,421	3,421	0.13	0.12	3.12	3,463
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.21	29.2	29.8	0.05	1.24	7.89	9.14	1.14	3.99	5.14	—	5,520	5,520	0.22	0.12	0.08	5,541
2027	45.4	11.0	16.4	0.03	0.36	0.71	1.07	0.34	0.17	0.51	—	3,585	3,585	0.12	0.12	0.08	3,624
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	8.75	11.5	0.02	0.33	0.73	1.07	0.31	0.27	0.58	—	2,431	2,431	0.09	0.07	0.80	2,456
2027	3.07	1.13	1.71	< 0.005	0.04	0.06	0.10	0.04	0.01	0.05	—	339	339	0.01	0.01	0.11	342
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.18	1.60	2.09	< 0.005	0.06	0.13	0.19	0.06	0.05	0.11	—	403	403	0.01	0.01	0.13	407
2027	0.56	0.21	0.31	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	56.1	56.1	< 0.005	< 0.005	0.02	56.6

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	61.5	37.1	328	0.74	0.61	64.2	64.8	0.57	16.3	16.9	373	81,746	82,119	41.6	3.89	21,266	105,586
Mit.	61.5	37.1	328	0.74	0.61	64.2	64.8	0.57	16.3	16.9	373	81,746	82,119	41.6	3.89	21,266	105,586
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	56.8	39.6	286	0.70	0.60	64.2	64.8	0.57	16.3	16.9	373	77,270	77,643	41.9	4.01	21,039	100,924
Mit.	56.8	39.6	286	0.70	0.60	64.2	64.8	0.57	16.3	16.9	373	77,270	77,643	41.9	4.01	21,039	100,924
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	56.2	38.1	282	0.65	0.57	58.6	59.2	0.53	14.9	15.4	373	72,333	72,706	41.7	3.82	21,125	96,013
Mit.	56.2	38.1	282	0.65	0.57	58.6	59.2	0.53	14.9	15.4	373	72,333	72,706	41.7	3.82	21,125	96,013
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.3	6.95	51.6	0.12	0.10	10.7	10.8	0.10	2.71	2.81	61.7	11,976	12,037	6.91	0.63	3,498	15,896
Mit.	10.3	6.95	51.6	0.12	0.10	10.7	10.8	0.10	2.71	2.81	61.7	11,976	12,037	6.91	0.63	3,498	15,896
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	58.1	36.4	323	0.74	0.55	64.2	64.7	0.52	16.3	16.8	—	75,431	75,431	3.87	3.78	234	76,889
Area	3.40	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	61.5	37.1	328	0.74	0.61	64.2	64.8	0.57	16.3	16.9	373	81,746	82,119	41.6	3.89	21,266	105,586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	54.1	38.9	286	0.69	0.55	64.2	64.7	0.52	16.3	16.8	—	70,974	70,974	4.12	3.90	6.06	72,247
Area	2.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	56.8	39.6	286	0.70	0.60	64.2	64.8	0.57	16.3	16.9	373	77,270	77,643	41.9	4.01	21,039	100,924
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	53.0	37.4	279	0.64	0.51	58.6	59.1	0.48	14.9	15.4	—	66,024	66,024	3.99	3.71	92.6	67,322
Area	3.16	0.03	3.23	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.3
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	56.2	38.1	282	0.65	0.57	58.6	59.2	0.53	14.9	15.4	373	72,333	72,706	41.7	3.82	21,125	96,013

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.67	6.82	50.9	0.12	0.09	10.7	10.8	0.09	2.71	2.80	—	10,931	10,931	0.66	0.61	15.3	11,146
Area	0.58	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,018	1,018	0.07	0.01	—	1,022
Water	—	—	—	—	—	—	—	—	—	—	4.57	23.9	28.5	0.47	0.01	—	43.6
Waste	—	—	—	—	—	—	—	—	—	—	57.1	0.00	57.1	5.71	0.00	—	200
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,482	3,482
Total	10.3	6.95	51.6	0.12	0.10	10.7	10.8	0.10	2.71	2.81	61.7	11,976	12,037	6.91	0.63	3,498	15,896

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	58.1	36.4	323	0.74	0.55	64.2	64.7	0.52	16.3	16.8	—	75,431	75,431	3.87	3.78	234	76,889
Area	3.40	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	61.5	37.1	328	0.74	0.61	64.2	64.8	0.57	16.3	16.9	373	81,746	82,119	41.6	3.89	21,266	105,586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	54.1	38.9	286	0.69	0.55	64.2	64.7	0.52	16.3	16.8	—	70,974	70,974	4.12	3.90	6.06	72,247
Area	2.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263

Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	56.8	39.6	286	0.70	0.60	64.2	64.8	0.57	16.3	16.9	373	77,270	77,643	41.9	4.01	21,039	100,924
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	53.0	37.4	279	0.64	0.51	58.6	59.1	0.48	14.9	15.4	—	66,024	66,024	3.99	3.71	92.6	67,322
Area	3.16	0.03	3.23	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.3
Energy	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	6,151	6,151	0.40	0.04	—	6,174
Water	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Waste	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Total	56.2	38.1	282	0.65	0.57	58.6	59.2	0.53	14.9	15.4	373	72,333	72,706	41.7	3.82	21,125	96,013
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.67	6.82	50.9	0.12	0.09	10.7	10.8	0.09	2.71	2.80	—	10,931	10,931	0.66	0.61	15.3	11,146
Area	0.58	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,018	1,018	0.07	0.01	—	1,022
Water	—	—	—	—	—	—	—	—	—	—	4.57	23.9	28.5	0.47	0.01	—	43.6
Waste	—	—	—	—	—	—	—	—	—	—	57.1	0.00	57.1	5.71	0.00	—	200
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,482	3,482
Total	10.3	6.95	51.6	0.12	0.10	10.7	10.8	0.10	2.71	2.81	61.7	11,976	12,037	6.91	0.63	3,498	15,896

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	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	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.2. Demolition (2026) - Mitigated

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

Location	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	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188

Demoliti	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.3. Site Preparation (2026) - Unmitigated

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

Location	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	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
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

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.95	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	222	222	< 0.005	0.01	0.02	225
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.16	6.16	< 0.005	< 0.005	0.01	6.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.4. Site Preparation (2026) - Mitigated

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

Location	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	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.95	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	222	222	< 0.005	0.01	0.02	225
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.16	6.16	< 0.005	< 0.005	0.01	6.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.5. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.96	< 0.005	0.04	—	0.04	0.03	—	0.03	—	162	162	0.01	< 0.005	—	163

Dust From Material Movement	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.6. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.82	0.96	< 0.005	0.04	—	0.04	0.03	—	0.03	—	162	162	0.01	< 0.005	—	163
Dust From Material Movement	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.7. Building Construction (2026) - Unmitigated

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

Location	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	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.55	7.31	0.01	0.21	—	0.21	0.20	—	0.20	—	1,351	1,351	0.05	0.01	—	1,356
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.01	1.33	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	2.54	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	488	488	0.02	0.02	1.65	496
Vendor	0.01	0.57	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	535	535	0.01	0.08	1.46	562
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.15	1.93	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	449	449	0.01	0.02	0.04	455
Vendor	0.01	0.60	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	536	536	0.01	0.08	0.04	560
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.14	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	256	256	< 0.005	0.01	0.40	260
Vendor	0.01	0.34	0.10	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	302	302	0.01	0.05	0.35	316
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.07	43.0
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	49.9	49.9	< 0.005	0.01	0.06	52.3
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

3.8. 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	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	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.55	7.31	0.01	0.21	—	0.21	0.20	—	0.20	—	1,351	1,351	0.05	0.01	—	1,356

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.01	1.33	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	2.54	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	488	488	0.02	0.02	1.65	496
Vendor	0.01	0.57	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	535	535	0.01	0.08	1.46	562
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.15	1.93	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	449	449	0.01	0.02	0.04	455
Vendor	0.01	0.60	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	536	536	0.01	0.08	0.04	560
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.14	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	256	256	< 0.005	0.01	0.40	260
Vendor	0.01	0.34	0.10	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	302	302	0.01	0.05	0.35	316
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.07	43.0
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	49.9	49.9	< 0.005	0.01	0.06	52.3
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

3.9. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.89	< 0.005	0.02	—	0.02	0.02	—	0.02	—	164	164	0.01	< 0.005	—	165
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.14	1.78	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	441	441	0.01	0.02	0.04	446
Vendor	0.01	0.57	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	526	526	0.01	0.08	0.03	550
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.6	30.6	< 0.005	< 0.005	0.04	31.0
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.0	36.0	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.06	5.06	< 0.005	< 0.005	0.01	5.13
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.96	5.96	< 0.005	< 0.005	0.01	6.24
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

3.10. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.89	< 0.005	0.02	—	0.02	0.02	—	0.02	—	164	164	0.01	< 0.005	—	165
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.12	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.14	1.78	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	441	441	0.01	0.02	0.04	446
Vendor	0.01	0.57	0.18	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	526	526	0.01	0.08	0.03	550
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.6	30.6	< 0.005	< 0.005	0.04	31.0
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.0	36.0	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.06	5.06	< 0.005	< 0.005	0.01	5.13
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.96	5.96	< 0.005	< 0.005	0.01	6.24
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

3.11. Paving (2027) - Unmitigated

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

Location	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	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.75	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	187	187	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.5

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.12. Paving (2027) - Mitigated

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

Location	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	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8

Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.75	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	187	187	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.13. 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	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	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	44.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.78	8.78	< 0.005	< 0.005	—	8.81
Architectural Coatings	2.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.45	1.45	< 0.005	< 0.005	—	1.46
Architectural Coatings	0.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.36	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	88.2	88.2	< 0.005	< 0.005	0.01	89.2

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.87	5.87	< 0.005	< 0.005	0.01	5.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	0.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.14. 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	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	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	44.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.78	8.78	< 0.005	< 0.005	—	8.81
Architectural Coatings	2.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.45	1.45	< 0.005	< 0.005	—	1.46
Architectural Coatings	0.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.36	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	88.2	88.2	< 0.005	< 0.005	0.01	89.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.87	5.87	< 0.005	< 0.005	0.01	5.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	0.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	28.9	20.5	186	0.45	0.33	39.1	39.4	0.31	9.92	10.2	—	45,559	45,559	2.09	2.16	142	46,398
Convenience Market with Gas Pumps	18.1	7.74	62.5	0.11	0.09	9.15	9.24	0.09	2.32	2.41	—	11,331	11,331	0.96	0.76	33.3	11,614
Fast Food Restaurant with Drive Thru	11.1	8.17	74.6	0.18	0.13	15.9	16.1	0.12	4.05	4.17	—	18,541	18,541	0.82	0.87	58.0	18,877
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	58.1	36.4	323	0.74	0.55	64.2	64.7	0.52	16.3	16.8	—	75,431	75,431	3.87	3.78	234	76,889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	27.0	21.9	161	0.42	0.33	39.1	39.4	0.31	9.92	10.2	—	42,840	42,840	2.20	2.23	3.69	43,563

Convenience Market with Gas Pumps	16.8	8.24	60.0	0.10	0.09	9.15	9.24	0.09	2.32	2.41	—	10,703	10,703	1.05	0.78	0.86	10,963
Fast Food Restaurant with Drive Thru	10.4	8.74	64.4	0.17	0.13	15.9	16.1	0.12	4.05	4.17	—	17,431	17,431	0.87	0.89	1.50	17,721
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	54.1	38.9	286	0.69	0.55	64.2	64.7	0.52	16.3	16.8	—	70,974	70,974	4.12	3.90	6.06	72,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	4.88	4.06	30.4	0.08	0.06	7.09	7.15	0.06	1.80	1.86	—	7,158	7,158	0.37	0.37	10.2	7,288
Convenience Market with Gas Pumps	3.02	1.52	11.2	0.02	0.02	1.66	1.68	0.02	0.42	0.44	—	1,787	1,787	0.17	0.13	2.38	1,833
Fast Food Restaurant with Drive Thru	1.77	1.24	9.27	0.02	0.02	1.94	1.96	0.02	0.49	0.51	—	1,986	1,986	0.12	0.11	2.79	2,025
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	9.67	6.82	50.9	0.12	0.09	10.7	10.8	0.09	2.71	2.80	—	10,931	10,931	0.66	0.61	15.3	11,146

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	28.9	20.5	186	0.45	0.33	39.1	39.4	0.31	9.92	10.2	—	45,559	45,559	2.09	2.16	142	46,398
Convenience Market with Gas Pumps	18.1	7.74	62.5	0.11	0.09	9.15	9.24	0.09	2.32	2.41	—	11,331	11,331	0.96	0.76	33.3	11,614
Fast Food Restaurant with Drive Thru	11.1	8.17	74.6	0.18	0.13	15.9	16.1	0.12	4.05	4.17	—	18,541	18,541	0.82	0.87	58.0	18,877
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	58.1	36.4	323	0.74	0.55	64.2	64.7	0.52	16.3	16.8	—	75,431	75,431	3.87	3.78	234	76,889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	27.0	21.9	161	0.42	0.33	39.1	39.4	0.31	9.92	10.2	—	42,840	42,840	2.20	2.23	3.69	43,563
Convenience Market with Gas Pumps	16.8	8.24	60.0	0.10	0.09	9.15	9.24	0.09	2.32	2.41	—	10,703	10,703	1.05	0.78	0.86	10,963
Fast Food Restaurant with Drive Thru	10.4	8.74	64.4	0.17	0.13	15.9	16.1	0.12	4.05	4.17	—	17,431	17,431	0.87	0.89	1.50	17,721
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	54.1	38.9	286	0.69	0.55	64.2	64.7	0.52	16.3	16.8	—	70,974	70,974	4.12	3.90	6.06	72,247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Superma	4.88	4.06	30.4	0.08	0.06	7.09	7.15	0.06	1.80	1.86	—	7,158	7,158	0.37	0.37	10.2	7,288
Convenience Market with Gas Pumps	3.02	1.52	11.2	0.02	0.02	1.66	1.68	0.02	0.42	0.44	—	1,787	1,787	0.17	0.13	2.38	1,833
Fast Food Restaurant with Drive Thru	1.77	1.24	9.27	0.02	0.02	1.94	1.96	0.02	0.49	0.51	—	1,986	1,986	0.12	0.11	2.79	2,025
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	9.67	6.82	50.9	0.12	0.09	10.7	10.8	0.09	2.71	2.80	—	10,931	10,931	0.66	0.61	15.3	11,146

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	4,511	4,511	0.28	0.03	—	4,528
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	230	230	0.01	< 0.005	—	231
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	362	362	0.02	< 0.005	—	363

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	245	245	0.02	< 0.005	—	246
Total	—	—	—	—	—	—	—	—	—	—	—	5,347	5,347	0.33	0.04	—	5,368
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	4,511	4,511	0.28	0.03	—	4,528
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	230	230	0.01	< 0.005	—	231
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	362	362	0.02	< 0.005	—	363
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	245	245	0.02	< 0.005	—	246
Total	—	—	—	—	—	—	—	—	—	—	—	5,347	5,347	0.33	0.04	—	5,368
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	747	747	0.05	0.01	—	750
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	38.0	38.0	< 0.005	< 0.005	—	38.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	< 0.005	< 0.005	—	40.7
Total	—	—	—	—	—	—	—	—	—	—	—	885	885	0.05	0.01	—	889

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	4,511	4,511	0.28	0.03	—	4,528
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	230	230	0.01	< 0.005	—	231
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	362	362	0.02	< 0.005	—	363
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	245	245	0.02	< 0.005	—	246
Total	—	—	—	—	—	—	—	—	—	—	—	5,347	5,347	0.33	0.04	—	5,368
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	4,511	4,511	0.28	0.03	—	4,528
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	230	230	0.01	< 0.005	—	231
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	362	362	0.02	< 0.005	—	363

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	245	245	0.02	< 0.005	—	246
Total	—	—	—	—	—	—	—	—	—	—	—	5,347	5,347	0.33	0.04	—	5,368
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	747	747	0.05	0.01	—	750
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	38.0	38.0	< 0.005	< 0.005	—	38.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	40.5	40.5	< 0.005	< 0.005	—	40.7
Total	—	—	—	—	—	—	—	—	—	—	—	885	885	0.05	0.01	—	889

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	0.02	0.43	0.37	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	—	520
Convenience Market with Gas Pumps	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5

Fast Food Restaurant with Drive Thru	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	258	258	0.02	< 0.005	—	259
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	804	804	0.07	< 0.005	—	806
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	0.02	0.43	0.37	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	—	520
Convenience Market with Gas Pumps	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Fast Food Restaurant with Drive Thru	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	258	258	0.02	< 0.005	—	259
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	804	804	0.07	< 0.005	—	806
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	85.9	85.9	0.01	< 0.005	—	86.2
Convenience Market with Gas Pumps	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.38	4.38	< 0.005	< 0.005	—	4.39

Fast Food Restaurant with Drive Thru	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	42.8	42.8	< 0.005	< 0.005	—	42.9
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	133

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	0.02	0.43	0.37	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	—	520
Convenience Market with Gas Pumps	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Fast Food Restaurant with Drive Thru	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	258	258	0.02	< 0.005	—	259
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	804	804	0.07	< 0.005	—	806
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	0.02	0.43	0.37	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	—	520

Convenience Market with Gas Pumps	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Fast Food Restaurant with Drive Thru	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	258	258	0.02	< 0.005	—	259
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	804	804	0.07	< 0.005	—	806
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	85.9	85.9	0.01	< 0.005	—	86.2
Convenience Market with Gas Pumps	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.38	4.38	< 0.005	< 0.005	—	4.39
Fast Food Restaurant with Drive Thru	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	42.8	42.8	< 0.005	< 0.005	—	42.9
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	133

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	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	2.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.77	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Total	3.40	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21
Total	0.58	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21

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	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	2.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.77	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Total	3.40	0.04	4.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.10	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21
Total	0.58	< 0.005	0.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.20	2.20	< 0.005	< 0.005	—	2.21

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	22.8	119	142	2.34	0.06	—	218
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.70	3.68	4.38	0.07	< 0.005	—	6.69
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	4.11	21.4	25.5	0.42	0.01	—	39.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.06	0.06	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	22.8	119	142	2.34	0.06	—	218

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.70	3.68	4.38	0.07	< 0.005	—	6.69
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	4.11	21.4	25.5	0.42	0.01	—	39.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.06	0.06	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	3.77	19.8	23.5	0.39	0.01	—	36.0
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.12	0.61	0.73	0.01	< 0.005	—	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	0.68	3.54	4.22	0.07	< 0.005	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	4.57	23.9	28.5	0.47	0.01	—	43.6

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	22.8	119	142	2.34	0.06	—	218
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.70	3.68	4.38	0.07	< 0.005	—	6.69
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	4.11	21.4	25.5	0.42	0.01	—	39.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.06	0.06	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	22.8	119	142	2.34	0.06	—	218
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.70	3.68	4.38	0.07	< 0.005	—	6.69
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	4.11	21.4	25.5	0.42	0.01	—	39.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.06	0.06	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	27.6	145	172	2.84	0.07	—	263
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Superma	—	—	—	—	—	—	—	—	—	—	3.77	19.8	23.5	0.39	0.01	—	36.0
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	0.12	0.61	0.73	0.01	< 0.005	—	1.11
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	0.68	3.54	4.22	0.07	< 0.005	—	6.47
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	4.57	23.9	28.5	0.47	0.01	—	43.6

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,026
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	7.96	0.00	7.96	0.80	0.00	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	43.9	0.00	43.9	4.38	0.00	—	153

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,026
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	7.96	0.00	7.96	0.80	0.00	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	43.9	0.00	43.9	4.38	0.00	—	153
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	48.6	0.00	48.6	4.85	0.00	—	170
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.61
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	7.26	0.00	7.26	0.73	0.00	—	25.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	57.1	0.00	57.1	5.71	0.00	—	200

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,026
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	7.96	0.00	7.96	0.80	0.00	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	43.9	0.00	43.9	4.38	0.00	—	153
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,026
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	7.96	0.00	7.96	0.80	0.00	—	27.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	43.9	0.00	43.9	4.38	0.00	—	153

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	345	0.00	345	34.5	0.00	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	48.6	0.00	48.6	4.85	0.00	—	170
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.61
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	7.26	0.00	7.26	0.73	0.00	—	25.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	57.1	0.00	57.1	5.71	0.00	—	200

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20,003	20,003

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,019	1,019
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20,003	20,003
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,019	1,019
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,312	3,312
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	169	169

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.83	1.83
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,482	3,482

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20,003	20,003
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,019	1,019
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20,003	20,003
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,019	1,019

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21,033	21,033
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,312	3,312
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	169	169
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.83	1.83
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,482	3,482

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

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

4.8.2. Mitigated

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

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

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/5/2026	2/2/2026	5.00	20.0	—
Site Preparation	Site Preparation	2/3/2026	2/17/2026	5.00	10.0	—
Grading	Grading	2/18/2026	3/18/2026	5.00	20.0	—
Building Construction	Building Construction	3/19/2026	2/4/2027	5.00	230	—
Paving	Paving	2/5/2027	3/5/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	1/4/2027	2/4/2027	5.00	24.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	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	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	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	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	35.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	17.8	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.08	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

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

Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	35.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	17.8	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.08	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	162,696	54,232	11,502

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	4.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Supermarket	0.00	0%
Convenience Market with Gas Pumps	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Parking Lot	4.40	100%
Fast Food Restaurant with Drive Thru	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
2026	0.00	532	0.03	< 0.005
2027	0.00	532	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
Supermarket	8,023	8,023	8,023	2,928,406	55,177	55,177	55,177	20,139,755
Convenience Market with Gas Pumps	5,546	5,546	5,546	2,024,287	12,919	12,919	12,919	4,715,374
Fast Food Restaurant with Drive Thru	1,934	1,934	1,934	705,911	8,817	8,817	17,440	3,667,754
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	1,111	1,111	1,111	405,515	5,065	5,065	5,065	1,848,660

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Supermarket	8,023	8,023	8,023	2,928,406	55,177	55,177	55,177	20,139,755
Convenience Market with Gas Pumps	5,546	5,546	5,546	2,024,287	12,919	12,919	12,919	4,715,374
Fast Food Restaurant with Drive Thru	1,934	1,934	1,934	705,911	8,817	8,817	17,440	3,667,754
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fast Food Restaurant with Drive Thru	1,111	1,111	1,111	405,515	5,065	5,065	5,065	1,848,660

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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	162,696	54,232	11,502

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)
Supermarket	3,095,180	532	0.0330	0.0040	1,619,459
Convenience Market with Gas Pumps	157,608	532	0.0330	0.0040	82,463

Fast Food Restaurant with Drive Thru	165,040	532	0.0330	0.0040	536,076
Parking Lot	167,936	532	0.0330	0.0040	0.00
Fast Food Restaurant with Drive Thru	83,117	532	0.0330	0.0040	269,977

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)
Supermarket	3,095,180	532	0.0330	0.0040	1,619,459
Convenience Market with Gas Pumps	157,608	532	0.0330	0.0040	82,463
Fast Food Restaurant with Drive Thru	165,040	532	0.0330	0.0040	536,076
Parking Lot	167,936	532	0.0330	0.0040	0.00
Fast Food Restaurant with Drive Thru	83,117	532	0.0330	0.0040	269,977

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Supermarket	11,893,410	183,577
Convenience Market with Gas Pumps	363,918	9,355
Fast Food Restaurant with Drive Thru	1,426,608	8,943
Parking Lot	0.00	7,928
Fast Food Restaurant with Drive Thru	718,464	4,503

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Supermarket	11,893,410	183,577
Convenience Market with Gas Pumps	363,918	9,355
Fast Food Restaurant with Drive Thru	1,426,608	8,943
Parking Lot	0.00	7,928
Fast Food Restaurant with Drive Thru	718,464	4,503

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Supermarket	544	—
Convenience Market with Gas Pumps	14.8	—
Fast Food Restaurant with Drive Thru	54.1	—
Parking Lot	0.00	—
Fast Food Restaurant with Drive Thru	27.3	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Supermarket	544	—
Convenience Market with Gas Pumps	14.8	—
Fast Food Restaurant with Drive Thru	54.1	—
Parking Lot	0.00	—
Fast Food Restaurant with Drive Thru	27.3	—

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
Supermarket	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Supermarket	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Supermarket	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Supermarket	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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

5.15.2. 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	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

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

6.2. Initial Climate Risk Scores

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

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.0
AQ-PM	53.3
AQ-DPM	13.7
Drinking Water	10.2
Lead Risk Housing	33.4
Pesticides	35.2
Toxic Releases	36.2
Traffic	42.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	65.8
Cardio-vascular	91.1
Low Birth Weights	41.5
Socioeconomic Factor Indicators	—
Education	92.2
Housing	75.3
Linguistic	61.1
Poverty	90.2
Unemployment	78.3

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	11.61298601
Employed	7.173104068
Median HI	34.63364558
Education	—
Bachelor's or higher	3.605800077
High school enrollment	14.38470422
Preschool enrollment	20.05646093
Transportation	—
Auto Access	81.29090209
Active commuting	17.74669575
Social	—
2-parent households	21.22417554
Voting	4.144745284
Neighborhood	—
Alcohol availability	63.15924548
Park access	81.35506224
Retail density	48.73604517
Supermarket access	65.55883485
Tree canopy	1.770819967
Housing	—
Homeownership	67.59912742
Housing habitability	18.02900038
Low-inc homeowner severe housing cost burden	11.06120878
Low-inc renter severe housing cost burden	3.37482356

Uncrowded housing	14.42320031
Health Outcomes	—
Insured adults	22.41755422
Arthritis	48.2
Asthma ER Admissions	42.5
High Blood Pressure	39.5
Cancer (excluding skin)	82.6
Asthma	16.4
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	22.3
Life Expectancy at Birth	19.2
Cognitively Disabled	58.3
Physically Disabled	60.6
Heart Attack ER Admissions	7.4
Mental Health Not Good	14.3
Chronic Kidney Disease	27.1
Obesity	8.0
Pedestrian Injuries	57.7
Physical Health Not Good	15.6
Stroke	29.9
Health Risk Behaviors	—
Binge Drinking	58.7
Current Smoker	15.0
No Leisure Time for Physical Activity	10.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	20.9
Elderly	91.7
English Speaking	32.2
Foreign-born	65.8
Outdoor Workers	20.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.4
Traffic Density	16.8
Traffic Access	23.0
Other Indices	—
Hardship	90.9
Other Decision Support	—
2016 Voting	12.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	9.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	The architectural coating phase is overlapped with building construction to simulate anticipated construction scenario.
Operations: Vehicle Data	Trip generation rate and pass by trips adjusted to match the October 2024 trip generation memo. No diverted link trips were calculated for the project.

Appendix B

Health Risk Assessment Screening Tool

GASOLINE DISPENSING SERVICE STATION

(Procedure Version 8.1 & Package N, September 1, 2017) - Risk Tool V1.103

AN:

Facility Name: Vallarta Market Plan

Deem Complete Date: 8/30/2023

Storage Tank Type	Underground		MET Station	Perris	
Annual Throughput	2.4	million gallons /year	Distance to Resident	44	meter
T-BACT	YES		Distance to Commercial	44	meter

MICR Calculation: MICR = MICR per 1 Million gallons/yr x Annual Throughput (Million gallons/yr)

HIA & HIC Calculation: Negligible compared to Cancer risk and is not calculated.

MICR Result

	Resident	Commercial
MICR	4.402	0.363
MICR ≤ 10	**PASS**	**PASS**

Interpolation for MICR from Nearest Distances

	Residential			**Commercial**		
	near	**actual**	far	near	**actual**	far
Distance (meter)	25	**44**	50	25	**44**	50
MICR (per 1 million gasoline gallon throughput per year)	3.494	**1.8342**	1.310	0.288	**0.151**	0.108

Look up from Table 12 - MICR for Underground Storage Tank

		Downwind Distance (m)							
Station	**Receptor**	**25**	**50**	**75**	**100**	**200**	**300**	**500**	**1000**
Perris	Resident	3.494	1.310	0.695	0.436	0.127	0.063	0.026	0.008
	Commercial	0.288	0.108	0.057	0.036	0.010	0.005	0.002	0.001