Polaris Place Residential Project Air Quality, Greenhouse Gas, and Energy Impact Study

Aliso Viejo, California
June 12, 2026

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RK ENGINEERING GROUP INC.

Polaris Place Residential Project Air Quality, Greenhouse Gas, and Energy Impact Study

City of Aliso Viejo, California

Prepared for:
Mr. Peter Carlson
CARLSON STRATEGIC LAND SOLUTIONS
27134A Paseo Espada, Suite 323
San Juan Capistrano, CA 92675

Prepared by:
RK Engineering Group, Inc.
1401 Dove Street, Ste. 540
Newport Beach, CA 92660

Bryan Estrada, T.E.
Becca Morrison

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1.0 Introduction

1.1 Purpose of Report & Study Objectives

The purpose of this air quality, greenhouse gas (GHG), and energy impact study is to determine whether the estimated energy usage and criteria air pollutants and greenhouse gas emissions generated from the construction and operation of the Polaris Place Residential Project (hereinafter referred to as "project") would cause significant impacts to air resources.

This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the California Air Resources Board (CARB), the SCAQMD, and City of Aliso Viejo recommendations for quantification of emissions and evaluation of potential impacts.

This study also evaluates the potential impact on energy conservation pursuant to CEQA Guidelines, Appendix F, Energy Conservation Analysis, and the use of renewable energy sources.

1.2 Site Location & Project Description

The proposed project site is generally located south of Aliso Viejo Parkway, between California State Route 73 (SR-73) and Aliso Creek Road, in the City of Aliso Viejo. The project site is approximately 22.5 acres and is currently occupied by existing general office buildings and associated parking lots. **Exhibit A** shows the location map of the proposed project.

The proposed project consists of demolition of the existing buildings and associated parking areas and redevelopment of the site with 405 single-family attached residential dwelling units at a density of approximately 18 dwelling units per acre. Ancillary residential amenities would include a recreational swimming pool and an associated pool building for use by project residents.

During construction, the project would demolish approximately 448,000 square feet of existing building area and approximately 36,841 tons of existing hardscape. In addition, the project will require the import of approximately 16,394 cubic yards of earthwork material for grading purposes.

Exhibit B shows the proposed site plan used for this analysis. **Table 1-1** summarizes the land use assumptions used for this analysis.

Table 1-1 | Project Land Use Summary

Project Land Use	CalEEMod Land Use Category	Quantity	Metric[1]
Single-Family Attached Housing	Condo/Townhouse High Rise	405	DU
Swimming Pool	Recreational Swimming Pool	0.06	TSF
Onsite Paved Surfaces	Parking Lot	6.98	TSF

[1] DU = Dwelling unit.
TSF = Thousand Square Feet.

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases.

For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours or longer, such as residences, hospitals, and schools (etc.), as described in the Localized Significance Threshold Methodology (SCAQMD 2008a, page 3-2). There are several sensitive land uses adjacent to the project site, including the following.

A project site location map, including sensitive receptor locations, is provided in **Exhibit A**.

Receptor-1 Existing residential land uses located to the northeast of the project site. The nearest residential homes located at Receptor-1 (marked as circle "1" on **Exhibit A**) are located directly adjacent to the northeastern boundary of the project site.

Receptor-2 Existing residential land uses located to the southeast of the project site. The nearest point of Receptor-2 (marked as circle "2" on **Exhibit A**) is located directly adjacent to the southeastern boundary of the project site.

For conservative localized analysis purposes, sensitive receptors are considered to be approximately 25 meters from the project site.

1.4 Summary of Analysis Results

Table 1-2 provides a summary of the CEQA air quality impact analysis results.

Table 1-2 | CEQA Air Quality Impact Criteria

Air Quality Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant	No Impact
Would the project:				
a) Conflict with, or obstruct the implementation of, the applicable air quality plan?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Table 1-3 provides a summary of the CEQA GHG impact criteria analysis results.

Table 1-3 | CEQA GHG Impact Criteria

Greenhouse Gas Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?			X	

Table 1-4 provides a summary of the CEQA energy impact criteria analysis results.

Table 1-4 | CEQA Energy Impact Criteria

Energy Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant	No Impact
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy?			**X**	
b) Conflict with or obstruct a State and/or local plan for renewable energy or energy efficiency?			**X**	



Legend

① = Sensitive Receptor Locations

= Project Site Boundary

Exhibit A

Location Map

POLARIS PLACE RESIDENTIAL PROJECT // CITY OF ALISO VIEJO

2827-2025-08

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Exhibit B

Site Plan

POLARIS PLACE RESIDENTIAL PROJECT // CITY OF ALISO VIEJO
2827-2025-08

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2.0 Air Quality Setting

The Federal Clean Air Act (§ 7602) defines air pollution as any agent or combination of such agents, including any physical, chemical, biological, or radioactive substance which is emitted into or otherwise enters the ambient air. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution. Air pollution can cause disease, allergies and death. It affects soil, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate. It can also cause damage to and deterioration of property, present hazards to transportation, and negatively impact the economy.

This section provides background information on criteria air pollutants, the applicable federal, state and local regulations concerning air pollution, and the existing physical setting of the project within the context of local air quality.

2.1 Description of Air Pollutants

The following section describes the air pollutants of concern related to the project. Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The following descriptions of criteria air pollutants have been provided by the SCAQMD.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, and competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs in the body. The ambient air quality standard for carbon monoxide is intended to protect persons whose medical condition already compromises their circulatory system's ability to deliver oxygen. These medical conditions include certain heart ailments, chronic lung diseases, and anemia. Persons with these conditions have reduced exercise capacity even when exposed to relatively low levels of CO. Fetuses are at risk because their blood has an even greater affinity to bind with CO. Smokers are also at risk from ambient CO levels because smoking increases the background level of CO in their blood. The South Coast basin has recently achieved attainment status for carbon monoxide by both USEPA and CARB.

- **Nitrogen Dioxide (NO_2)** is a byproduct of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in young

children has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light which results in a brownish red cast to the atmosphere and reduced visibility. Although NO_2 concentrations have not exceeded national standards since 1991 and the state hourly standard since 1993, NO_x emissions remain of concern because of their contribution to the formation of O_3 and particulate matter.

- **Ozone (O_3)** is one of a number of substances called photochemical oxidants that are formed when volatile organic compounds (VOC) and NO_x react in the presence of ultraviolet sunlight. O_3 concentrations in the South Coast basin are typically among the highest in the nation, and the damaging effects of photochemical smog, which is a popular name for a number of oxidants in combination, are generally related to the concentrations of O_3. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the subgroups most susceptible to O_3 effects. Short-term exposures (lasting for a few hours) to O_3 at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. The South Coast Air Basin is designated by the USEPA as an extreme non-attainment area for ozone. Although O_3 concentrations have declined substantially since the early 1990s, the South Coast basin continues to have peak O_3 levels that exceed both state and federal standards.

- **Fine Particulate Matter (PM_{10})** consists of extremely small suspended particles or droplets 10 microns or smaller in diameter that can lodge in the lungs, contributing to respiratory problems. PM_{10} arises from such sources as re-entrained road dust, diesel soot, combustion products, tire and brake abrasion, construction operations, and fires. It is also formed in the atmosphere from NO_x and SO_2 reactions with ammonia. PM_{10} scatters light and significantly reduces visibility. Inhalable particulates pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled will be deposited in the lungs and can cause permanent lung damage. Inhalable particulates can also have a damaging effect on health by interfering with the body's mechanism for clearing the respiratory tract or by acting as a carrier of an absorbed toxic substance. The South Coast basin has recently achieved federal attainment status for PM_{10}, but is non-attainment based on state requirements.

- **Ultra-Fine Particulate Matter ($PM_{2.5}$)** is defined as particulate matter with a diameter less than 2.5 microns and is a subset of PM_{10}. $PM_{2.5}$ consists mostly of products from the reaction of NO_x and SO_2 with ammonia, secondary organics, finer dust particles, and the combustion of fuels, including diesel soot. $PM_{2.5}$ can cause exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease, declines in pulmonary function growth in children, and increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute

respiratory conditions, school absences, and increased medication use in children and adults with asthma. The South Coast basin is designated as non-attainment for $PM_{2.5}$ by both federal and state standards.

- **Sulfur Dioxide (SO_2)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children. Individuals with asthma may experience constriction of airways with exposure to SO_2. Though SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM_{10}. The South Coast basin is considered a SO_2 attainment area by USEPA and CARB.

- **Lead (Pb)** is a toxic heavy metal that can be emitted into the air through some industrial processes, burning of leaded gasoline and past use of lead-based consumer products. Lead is a neurotoxin that accumulates in soft tissues and bones, damages the nervous system, and causes blood disorders. It is particularly problematic in children, in that permanent brain damage may result, even if blood levels are promptly normalized with treatment. Concentrations of lead once exceeded the state and federal air quality standards by a wide margin, but as a result of the removal of lead from motor vehicle gasoline, ambient air quality standards for lead have not been exceeded since 1982. Though special monitoring sites immediately downwind of lead sources recorded localized violations of the state standard in 1994, no violations have been recorded since. Consequently, the South Coast basin is designated as an attainment area for lead by both the USEPA and CARB. This report does not analyze lead emissions from the project, as it is not expected to emit lead in any significant measurable quantity.

- **Volatile Organic Compounds (VOCs)**, although not actually a criteria air pollutant, VOCs are regulated by the SCAQMD because they cause chemical reactions which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM_{10} and lower visibility levels. Sources of VOCs include combustion engines, and evaporative emissions associated with fuel, paints and solvents, asphalt paving, and the use of household consumer products such as aerosols. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC. Some hydrocarbon components classified as VOC emissions are hazardous air pollutants. Benzene, for example, is a hydrocarbon component of VOC emissions that are known to be a human carcinogen. The term reactive organic gases (ROG) are often used interchangeably with VOC.

- **Toxic Air Contaminants (TACs)** are defined as air pollutants which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, and for which there is no concentration that does not present some risk. This contrasts with the criteria pollutants, in that there is no threshold level for TAC exposure below which adverse health impacts are not expected to occur. The majority of the

estimated health risk from TACs can be attributed to a relatively few compounds, the most common being diesel particulate matter (DPM) from diesel engine exhaust. In addition to DPM, benzene and 1,3-butadiene are also significant contributors to overall ambient public health risk in California.

2.2 Federal and State Ambient Air Quality Standards

The Federal Clean Air Act, which was last amended in 1990, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants considered harmful to public health and the environment. The State of California has also established additional and more stringent California Ambient Air Quality Standards (CAAQS) in addition to the seven criteria pollutants designated by the federal government.

AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety. The standards are divided into two categories, primary standards and secondary standards. Primary standards are implemented to provide protection for the "sensitive" populations such as those with asthma, or the children and elderly. Secondary standards are to provide protection against visible pollution as well as damage to the surrounding environment, including animals, crops, and buildings.

Table 2-1 shows the Federal and State Ambient Air Quality Standards.

Table 2-1 | Federal and State Ambient Air Quality Standards (AAQS)[1]

Air Pollutant	Averaging Time[2]	Federal Standard (NAAQS)[2]	California Standard (CAAQS)[2]
Ozone	1 Hour	--	0.09 ppm
	8 Hour	0.07 ppm	0.07 ppm
Carbon Monoxide (CO)	1 Hour	35 ppm	20 ppm
	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.100 ppm	0.18 ppm
	Annual	0.053 ppm	0.030 ppm
Sulfur Dioxide (SO_2)	1 Hour	0.075 ppm	0.25 ppm
	3 Hour	0.5 ppm[3]	--
	24 Hour	0.14 ppm	0.04 ppm
Fine Particulate Matter (PM_{10})	24 Hour	150 µg/m^3	50 µg/m^3
	Annual Mean	--	20 µg/m^3
Ultra-Fine Particulate Matter ($PM_{2.5}$)	24 Hour	35 µg/m^3	--
	Annual Mean	9.0 µg/m^3	12.0 µg/m^3
Lead (Pb)	30 Day Average	--	1.5 µg/m^3
	Calendar Quarter	1.5 µg/m^3	--
	Rolling 3 Month Average	0.15 µg/m^3	--
Visibility Reducing Particles	8 Hour	--	0.23/km extinction coefficient (10-mile visibility standard)
Sulfates	24 Hour	--	25 µg/m^3
Hydrogen Sulfide	1 Hour	--	0.03 µg/m^3
Vinyl Chloride	24 Hour	--	0.01 ppm

[1] Source: CARB. https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.
[2] ppm = parts per million of air by volume.
µg/m^3 = micrograms per cubic meter.
[3] Secondary standards.

Several pollutants listed in **Table 2-1** are not addressed in this analysis. Lead is not included because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be

exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.3 Attainment Status

The Clean Air Act requires states to prepare a State Implementation Plan (SIP) to ensure air quality meets the NAAQS. The California Air Resources Board (CARB) provides designations of attainment for air basins where AAQS are either met or exceeded. If the AAQS are met, the area is designated as being in "attainment", if the air pollutant concentrations exceed the AAQS, then the area is designated as being "nonattainment". If there is inadequate or inconclusive data to make a definitive attainment designation, the area is considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

When a state submits a request to the EPA to re-designate a nonattainment area to attainment, the Clean Air Act (CAA) section 175A(a) requires that the state (or states, if the area is a multi-state area) submit a maintenance plan ensuring the area can maintain the air quality standard for which the area is to be re-designated for at least 10 years following the effective date of re-designation. **Table 2-2** lists the attainment status for the criteria pollutants in the South Coast Air Basin (SCAB).

Table 2-2 | South Coast Air Basin Attainment Status[1]

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)[2]
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Attainment (Maintenance)
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Nonattainment (Partial)[3]

[1] Source: CARB. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.
[2] 8-Hour Ozone.
[3] Partial Nonattainment designation for Los Angeles County portion of Basin only.

2.4 South Coast Air Quality Management District (SCAQMD)

The agency responsible for air pollution control for the South Coast Air Basin (SCAB) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the SCAB. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

The latest version is the 2022 AQMP, adopted in December 2022. The 2022 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. While air quality has dramatically improved over the years, the SCAB still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The 2022 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time.

According to the 2022 AQMP, the most significant air quality challenge in the SCAB is to reduce nitrogen oxide (NO_x) emissions sufficiently to meet the upcoming ozone standard deadlines. Based

on the inventory and modeling results, the 2022 AQMP projects that 184 tons per day (tpd) of NO_x will be emitted in the year 2037 as a result of continued implementation of already adopted regulatory actions ("baseline emissions"). The analysis suggests that in order to meet the ozone standard of 60 tpd, NO_x emissions need to be reduced about 67 percent beyond the projected 2037 baseline emissions and about 83 percent below current levels[1].

2.4.1 SCAQMD Rules and Regulations

The SCAQMD establishes a program of rules and regulations to obtain attainment of the state and federal standards in conjunction with the AQMP. Several of the rules and regulations that may be applicable to this project include, but are not limited to, the following:

- **SCAQMD Rule 402** prohibits a person from discharging 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.

- **SCAQMD Rule 403** governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

- **SCAQMD Rule 445** restricts wood burning devices from being installed into any new development and is intended to reduce the emissions of particulate matter for wood burning devices.

- **SCAQMD Rule 1113** governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with Rule 1113.

- **SCAQMD Rule 1143** governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

[1] Source: South Coast Air Quality Management District. *2022 Air Quality Management Plan*. Adopted December 2, 2022.

- **SCAQMD Rule 1186** limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

The proposed project would be required to comply with the above South Coast Air Quality Management District rules and regulations, as well as all applicable federal, state, regional, and local regulations related to air quality. The following list summarizes applicable regulatory compliance requirements for the project. The project actions listed below represent standard regulatory compliance obligations and are not considered mitigation measures.

1. During construction, the project will follow the SCAQMD rules and requirements for fugitive dust control, including the following:
    - Pre-water active grading or trenching areas.
    - Water all active construction areas as frequently as needed (at least twice daily) to prevent visible dust plumes from extending more than 100 feet.
    - Maintain a stabilized surface or apply dust suppressants to inactive areas, disturbed surfaces, staging areas, haul routes, and unpaved roads.
    - Limit on-site vehicle speeds to 15 mph on unpaved areas.
    - Maintain all haul trucks with covered loads and ≥6 inches of freeboard (CVC §23114).
    - Stabilize stockpiles with water or covers and restrict height if near occupied structures.
    - Use a gravel pad at egress points (minimum 30' x 50', 1" washed gravel, 6" depth), or alternatively a wheel shaker or wheel washing station.
    - Remove track-out extending ≥25 feet onto public roadways immediately and clean daily.
    - Suspend dust-generating activities and implement contingency measures during high wind events (wind gusts >25 mph).
    - Re-vegetate or stabilize disturbed areas within 21 days of inactivity.
    - Limit construction vehicle traffic to designated haul routes only.
2. The project will utilize low-VOC or zero-VOC paints, coatings, and solvents consistent with the requirements of SCAQMD Rules 1113 and 1143.

2.5 Local Climate and Meteorology

The weather station closest to the project site is the National Weather Service Cooperative – Laguna Beach, CA (044647) station. Climatological data from the National Weather Service at this station is summarized in **Table 2-3**.

Table 2-3 | Meteorological Summary[1]

Month	Temperature (°F)			Mean Precipitation (inches)
	Max.	Min.	Mean	
January	65.1	43.0	54.1	2.43
February	66.1	44.1	55.1	2.77
March	67.1	45.8	56.5	2.01
April	69.0	48.4	58.7	0.98
May	70.9	53.0	62.0	0.25
June	73.1	56.1	64.6	0.10
July	76.5	59.3	67.9	0.03
August	78.1	59.6	68.9	0.07
September	77.5	58.2	67.9	0.26
October	74.5	53.7	64.1	0.47
November	70.4	47.5	59.0	1.24
December	66.1	43.4	54.8	1.92
Annual	**71.2**	**51.0**	**61.1**	**12.52**

[1] Source: Western Regional Climate Center. Averages derived from measurements recorded between 1928 and 2016 at Laguna Beach, CA (044647).

2.6 Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin.

The SCAQMD has divided the SCAB into fourteen general forecasting areas and thirty-eight Source Receptor Areas (SRAs) for monitoring and reporting local air quality. The SCAQMD provides daily reports of the current air quality conditions in each general forecast area and SRA. The monitoring areas provide a general representation of the local meteorological, terrain, and air quality conditions within the SCAB.

The project is located within the Coastal general forecasting area and Central Orange County Coastal air monitoring area (SRA-20). The SCAQMD has not published air quality monitoring data for SRA-20. Therefore, pollutant data for the most recent three-year period is derived from the nearest adjacent stations available (i.e., Saddleback Valley/SRA-19 and Central Orange County/SRA-17). These pollutant levels were used to comprise a "background" for the project location and existing local air quality.

Table 2-4 | Local Air Quality[1]

Air Pollutant Location	Averaging Time	Item[2]	2022	2023	2024
Carbon Monoxide -- Saddleback Valley	1 Hour	Max 1-Hour (ppm)	1.2	--	--
		Exceeded State Standard (20 ppm)	No	--	--
		Exceeded National Standard (35 ppm)	No	--	--
	8 Hour	Max 8 Hour (ppm)	1.0	--	--
		Days > State Standard (9 ppm)	No	--	--
		Days >National Standard (9 ppm)	No	--	--
Ozone -- Saddleback Valley	1 Hour	Max 1-Hour (ppm)	0.110	--	--
		Days > State Standard (0.09 ppm)	1.0	--	--
	8 Hour	Max 8 Hour (ppm)	0.088	--	--
		Days > State Standard (0.070 ppm)	6	--	--
		Days >National Standard (0.070 ppm)	5	--	--
Nitrogen Dioxide -- Central Orange County	1 Hour	Max 1-Hour (ppm)	0.053	0.051	0.053
		Exceeded State Standard (0.18 ppm)	No	No	No
	Annual	Annual Average (ppm)	0.012	0.011	0.011
		Exceeded State Standard (0.030 ppm)	No	No	No
		Exceeded National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide -- Saddleback Valley	1 Hour	Max 1 Hour (ppm)	--	--	--
		Exceeded State Standard (0.25 ppm)	--	--	--
		Exceeded National Standard (0.075 ppm)	--	--	--
PM10 -- Central Orange County	24 Hour	Max 24-Hour (µg/m³)	--	146	118
		Days > State Standard (50 µg/m³)	--	7	6
		Days >National Standard (150 µg/m³)	--	0	0 (0%)
	Annual	Annual Average (µg/m³)	--	24.00	26.50
		Exceeded State Standard (20 µg/m³)	--	Yes	Yes
PM2.5 -- Central Orange County	24 Hour	Max 24-Hour (µg/m³)	--	33.20	49.70
		Days >National Standard (35 µg/m³)	--	0	4
	Annual	Annual Average (µg/m³)	--	9.07	10.31
		Exceeded State Standard (12 µg/m³)	--	No	No
		Exceeded National Standard (15 µg/m³)	--	No	No

[1] Source: https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year.

[2] ppm = parts per million.
µg/m³ = micrograms per cubic meter.

3.0 Global Climate Change Setting

Global climate change is the change in the average weather of the earth that is measured by such things as alterations in temperature, wind patterns, storms, and precipitation. Current data shows that the recent period of warming is occurring more rapidly than past geological events. The average global surface temperature has increased by approximately 1.4° Fahrenheit since the early 20th Century. 1.4° Fahrenheit may seem like a small change, but it's an unusual event in Earth's recent history, and as we are seeing, even small changes in temperature can cause enormous changes in the environment.

The planet's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature has been stable over long periods of time. For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average global temperatures were only 5° to 9° Fahrenheit cooler than today. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5° to 10° Fahrenheit over the next century. Therefore, significant changes to the environment are expected in the near future.

The consequences of global climate change include more frequent and severe weather, worsening air pollution by increasing ground level ozone, higher rates of plant and animal extinction, more acidic and oxygen depleted oceans, strain on food and water resources, and threats to densely populated coastal and low-lying areas from sea level rise.

The impacts of climate change are already visible in the Southwest United States. In California, the consequences of climate change include:

- A rise in sea levels resulting in the displacement of coastal businesses and residencies;
- A reduction in the quality and supply of water from the Sierra snowpack;
- Increased risk of large wildfires;
- Exacerbation of air quality problems;
- Reductions in the quality and quantity of agricultural products;
- An increased temperature and extreme weather events; and
- A decrease in the health and productivity of California's forests.

3.1 Greenhouse Gases (GHGs)

GHGs comprise less than 0.1 percent of the total atmospheric composition, yet they play an essential role in influencing climate. Greenhouse gases include naturally occurring compounds such as carbon

dioxide (CO_2), methane (CH_4), water vapor (H_2O), and nitrous oxide (N_2O), while others are synthetic. Man-made GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Different GHGs have different effects on the Earth's warming. GHGs differ from each other in their ability to absorb energy (their "radiative efficiency") and how long they stay in the atmosphere, also known as the "lifetime".

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases and allows policymakers to compare emissions reduction opportunities across sectors and gases.

Table 3-1 lists the 100-year GWP of GHGs from the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR5) and IPCC sixth (6th) assessment report (AR6).

Table 3-1 | Global Warming Potential of Greenhouse Gases[1, 2]

Gas Name	Formula	Lifetime (Years)	GWP
Carbon Dioxide	CO_2	--	1
Methane	CH_4 (Fossil Origin)	12	29.8
	CH_4 (Non-Fossil Origin)		27.2
Nitrous Oxide	N_2O	114	273
Sulphur Hexafluoride	SF_6	3200	23,500
Nitrogen Trifluoride	NF_3	740	16,100
Chlorofluorocarbon (CFC-11)	CFC-11	52	8,321
Hexafluoroethane (PFC-116)	C_2F_6	10,000	11,100
Octafluoropropane (PFC-218)	C_3F_8	2,600	8,900
Octafluorocyclobutane (PFC-318)	C_4F_8	3,200	9,540
Tetrafluoromethane (PFC-14)	CF_4	50,000	5,301
Hydrofluorocarbon 125	HFC-125	29	3,170
Hydrofluorocarbon 134a	HFC-134a	14	1,526
Hydrofluorocarbon 143a	HFC-143a	52	4,800
Hydrofluorocarbon 152a	HFC-152a	1	138
Hydrofluorocarbon 227ea	HFC-227ea	34	3,350
Hydrofluorocarbon 23	HFC-23	270	12,400
Hydrofluorocarbon 236fa	HFC-236fa	240	8,060
Hydrofluorocarbon 245fa	HFC-245fa	8	858
Hydrofluorocarbon 32	HFC-32	5	771
Hydrofluorocarbon 365mfc	HFC-365mfc	9	804
Hydrofluorocarbon 43-10mee	HFC-43-10mee	16	1,650

[1] Source: IPCC Sixth Assessment Report (AR6). https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf and https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf.

[2] GWPs are used to convert GHG emission values to "carbon dioxide equivalent" (CO_2e) units.

3.2 GHG Regulatory Setting – State of California

The State of California has been a leader in climate change legislation and has passed numerous bills to reduce greenhouse gas emissions across all sectors of the economy. Some of the key climate legislation and regulation in the State include the following:

- **Assembly Bill (AB) 32, California Global Warming Solutions Act of 2006.** AB 32 set the stage for the State's transition to a sustainable, low-carbon future. AB 32 was the first program in the country to take a comprehensive, long-term approach to addressing climate change.
- **Senate Bill (SB) 375, Sustainable Communities & Climate Protection Act of 2008.** SB 375 requires the Air Resources Board to develop regional greenhouse gas emission reduction targets for passenger vehicles GHG reduction targets for 2020 and 2035 for each region covered by the State's 18 metropolitan planning organizations.
- **Senate Bill (SB) 100, California Renewables Portfolio Standard Program.** SB 100 established a landmark policy requiring renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045.
- **California Building Standards Code – Title 24.** The California Building Standards Code Title 24 Part 6 (Energy Code) and Title 24 Part 11 (CALGreen) requires multiple building provisions to reduce energy usage and GHG emissions and is updated on a triennial basis.

3.3 GHG Emissions Inventory

Table 3-2 shows the latest GHG emission inventories at the national, state, regional, and local levels.

Table 3-2 | GHG Emissions Inventory [1]

United States (2019)[2]	State of California (2019)[3]	SCAG (2020)[4]
6,558 $MMTCO_2e$	418 $MMTCO_2e$	216.4 $MMTCO_2e$

[1] MMTCO2e = million metric tons of carbon dioxide equivalents.
[2] https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks.
[3] Source: California Air Resources Board (CARB). *Current California GHG Emission Inventory Data.* https://ww2.arb.ca.gov/ghg-inventory-data.
[4] SCAG – Regional GHG Inventory and Reference Case Projections, 1990 – 2035. May 30, 2012. http://www.scag.ca.gov/programs/Pages/GreenhouseGases.aspx.

4.0 Modeling Parameters and Assumptions

The California Emissions Estimator Model Version 2022.1.1 (CalEEMod) was used to calculate criteria air pollutants and GHG emissions from the construction and operation of the project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria air pollutant and GHG emissions.

The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies design features to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

4.1 Construction Assumptions

Construction of the project is estimated to begin in the year 2027. Construction activities are expected to consist of demolition, site preparation, grading, building construction, paving, and architectural coating. The project will require the import of approximately 16,394 cubic yards of earthwork material for grading purposes.

The CalEEMod default construction equipment list is based on survey data and the size of the site. The parameters used to estimate construction emissions, such as the worker and vendor trips and trip lengths, utilize the CalEEMod defaults.

Construction-related emissions were modeled using the default CalEEMod construction equipment assumptions. The default equipment fleet for each construction phase was reviewed and adjusted, as appropriate, based on the project applicant's proposed equipment list. The construction equipment list used in the model is shown in **Table 4-1**.

The project will be required to comply with several standard fugitive dust control measures, per SCAQMD Rule 403. The following key inputs are utilized in CalEEMod and are based upon data provided from SCAQMD:

- Water exposed area – 61% PM10 and PM2.5 reduction.
- Water unpaved roads twice daily – 55% PM10 and PM2.5 reduction.
- Limit vehicle speeds on unpaved roads to 25 mph – 44% PM10 and PM2.5 reduction.
- Sweep paved roads once per month – 9% PM10 and PM2.5 reduction.

Table 4-1 | Construction Equipment Assumptions [1]

Phase	Equipment	Number	Hours Per Day	Soil Disturbance Rate (Acres/8-Hour Day)	Off-Road Equipment Daily Disturbance Footprint (Acres)	Total Daily Disturbance Footprint (Acres)
Demolition	Concrete/Industrial Saws	1	8	0.00	0.00	1.00
	Excavators	5	8	0.00	0.00	
	Rubber Tired Dozers	2	8	0.50	1.00	
	Skid Steer Loaders	4	8	0.00	0.00	
	Forklifts	1	4	0.00	0.00	
	Off-Highway Trucks	1	8	0.00	0.00	
Site Preparation	Rubber Tired Dozers	1	8	0.50	0.50	0.50
	Tractors/Loaders/Backhoes	1	8	0.00	0.00	
	Excavators	2	8	0.00	0.00	
Grading	Excavators	2	8	0.00	0.00	6.00
	Graders	2	8	0.50	1.00	
	Rubber Tired Dozers	1	8	0.50	0.50	
	Scrapers	4	8	1.00	4.00	
	Tractors/Loaders/Backhoes	2	8	0.00	0.00	
	Crawler Tractors	1	8	0.50	0.50	
	Off-Highway Trucks	1	8	0.00	0.00	
Building Construction	Cranes	1	7	0.00	0.00	0.00
	Forklifts	3	8	0.00	0.00	
	Generator Sets	1	8	0.00	0.00	
	Tractors/Loaders/Backhoes	3	8	0.00	0.00	
	Welders	1	8	0.00	0.00	
	Pumps	1	8	0.00	0.00	
Paving	Pavers	1	8	0.00	0.00	0.00
	Paving Equipment	2	8	0.00	0.00	
	Rollers	3	8	0.00	0.00	
Architectural Coating	Air Compressors	1	6	0.00	0.00	0.00
	Pumps	1	8	0.00	0.00	

[1] CalEEMod defaults.

4.2 Localized Construction Analysis Modeling Parameters

CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. This report identifies the following parameters in the project design or applicable mitigation measures in order to compare CalEEMod reported emissions against the localized significance threshold lookup tables:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2. The maximum number of acres disturbed on the peak day.
3. Any emission control devices added onto off-road equipment.
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

4.3 Operational Assumptions

Operational emissions occur over the life of the project and are considered "long-term" sources of emissions. Operational emissions include both direct and indirect sources. This section briefly describes the operational sources of emissions analyzed for the project.

4.3.1 Mobile Source Emissions

Mobile source emissions are the largest source of long-term air pollutants from the operation of the project. Mobile sources are direct sources of project emissions that are primarily attributed to tailpipe exhaust and road dust (tire, brake, clutch, and road surface wear) from motor vehicles traveling to and from the site.

Estimates of mobile source emissions require information on four parameters: trip generation, trip length, vehicle/fleet mix, and emission factors (quantity of emission for each mile traveled or time spent idling by each vehicle).

Trip generation rates used in this analysis were obtained from the project's traffic study, *Polaris Place Residential Project Revised Traffic Impact Study Scoping Agreement* (May 4, 2026), prepared by RK. For trip lengths, the CalEEMod defaults are used.

The project site is currently developed with commercial office uses and associated parking areas and would be redeveloped with 405 single-family attached dwelling units on approximately 22.5 acres, resulting in a residential density of approximately 18 dwelling units per acre. To account for the transportation efficiencies associated with this higher-density residential development, the CalEEMod model incorporates CAPCOA Quantified Measure T-1 (Increase Residential Density) as part of the

project design. Incorporation of this measure reduces the project's estimated vehicle miles traveled (VMT) and associated mobile-source emissions.

The Emission Factors (EMFAC2021) 2021 model and off-model adjustments factors to account for the SAFE Vehicle Rule is used to estimate the mobile source emissions are embedded in the CalEEMod emissions model. No adjustments have been made to default emission factors.

The project's total vehicle miles traveled is shown in **Table 4-2**.

Table 4-2 | Operational Vehicle Miles Traveled [1]

Land Use	Annual Home-Based Vehicle Miles Traveled (VMT)
Condo/Townhouse High Rise	7,037,920

[1] Based on project-specific trip generation rates and CalEEMod default trip length assumptions, including implementation of CAPCOA Quantified Measure T-1 (Increase Residential Density).

To be conservative, this analysis has assumed that 2% of the total trips associated with the project will be heavy trucks with a gross vehicle weight rating (GVWR) of 10,000 pounds or greater. This includes LHD2, MHD, HHD, OBUS, UBUS, and SBUS vehicles. The adjusted vehicle mix is proportioned according to the default CalEEMod vehicle mix.

Table 4-3 summarizes the adjusted vehicle mix used for the project.

Table 4-3 | Operational Vehicle Mix [1]

Vehicle Type	Vehicle Mix
Light Duty Automobile (LDA)	49.77%
Light Duty Truck (LDTI)	3.93%
Light Duty Truck (LDT2)	24.34%
Medium Duty Truck (MDV)	14.80%
Light Heavy Truck (LHD1)	2.87%
Light Heavy Truck (LHD2)	0.44%
Medium Heavy Truck (MHD)	0.91%
Heavy Heavy Truck (HHD)	0.35%
Other Bus (OBUS)	0.03%
Urban Bus (UBUS)	0.02%
Motorcycle (MCY)	2.29%
School Bus (SBUS)	0.06%
Motor Home (MH)	0.20%
Total	**100.00%**

[1] Adjusted fleet mix to include 2% total trucks over 10,000 lbs. GVWR (LHD2, MHD, HHD, OBUS, UBUS, SBUS, MH).

4.3.2 Energy Source Emissions

Energy usage includes both direct and indirect sources of emissions. Direct sources of emissions include on-site energy usage, while indirect emissions include electricity generated by offsite power plants.

CalEEMod divides building electricity use into uses that are subject to Title 24 standards and those that are not. Lighting electricity usage is also calculated as a separate category in CalEEMod. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24, such as space heating, space cooling, water heating, and ventilation. Non-Title 24 uses include all other end uses, such as appliances, electronics, and other miscellaneous plug-in uses. Because some lighting is not considered as part of the building envelope energy budget, and since a separate mitigation measure is applicable to this end use, CalEEMod makes lighting a separate category.

The baseline values are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

The project will be required to provide on-site renewable energy photovoltaic installations (solar panels), as prescribed by the 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.

In order to assess the project's future energy usage, RK has performed a quantitative energy impact analysis using CEQA energy impact criteria. The energy impact analysis is provided in **Section 8.0** of this report.

4.3.3 Area Source Emissions

Area source emissions are direct sources of emissions that fall under four categories: hearths, consumer products, architectural coatings, and landscaping equipment. Per SCAQMD Rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Consumer products are various solvents used in non-industrial applications which emit ROGs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries.

4.3.4 Other Sources of Operational Emissions

- **Water.** Greenhouse gas emissions are generated from the upstream energy required to supply and treat the water used on the project site. Indirect emissions from water usage are counted as part of the project's overall impact. The indoor water use estimated for the proposed project is based on CalEEMod defaults, while the outdoor water use is adjusted based on project-specific data.

- **Waste.** CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon.

The project's estimated water usage and waste generation is reported in **Table 4-4**.

Table 4-4 | Operational Water Usage and Waste Generation [1]

Land Use	Water Usage (gallons/yr)			Waste Generation (tons/yr)
	Indoor	Outdoor	Total	
Condo/Townhouse High Rise	15,197,888.25	2,200,000.00	17,397,888.25	299.51
Recreational Swimming Pool	96,994.76	--	96,994.76	9.35
Parking Lot	--	--	--	--
Total	**15,294,883.01**	**2,200,000.00**	**17,494,883.01**	**308.86**

[1] The indoor water use estimated for the proposed project is based on CalEEMod defaults, while the outdoor water use is adjusted based on project-specific data.

5.0 Significance Thresholds

5.1 Air Quality Regional Significance Thresholds

The SCAQMD has established air quality emissions thresholds for criteria air pollutants for the purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA. By complying with the thresholds of significance, the project would be in compliance with the SCAQMD Air Quality Management Plan (AQMP) and the federal and state air quality standards.

Table 5-1 lists the air quality significance thresholds for the six air pollutants analyzed in this report. Lead is not included as part of this analysis as the project is not expected to emit lead in any significant measurable quantity.

Table 5-1 | SCAQMD Regional Significance Thresholds[1]

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

[1] Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

5.2 Air Quality Localized Significance Thresholds

Air quality emissions were analyzed using the SCAQMD's Mass Rate Localized Significance Threshold (LST) Look-up Tables.

Table 5-2 lists the Localized Significance Thresholds (LST) used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. LSTs are developed based on the ambient concentrations of four applicable air pollutants for SRA-20 (Central Orange County Coastal).

The nearest existing sensitive receptors are located directly adjacent to the northeastern and southeastern boundaries of the proposed project site. Although receptors are located closer than 25

meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area during construction is calculated to be 6 acres, however, LST thresholds are only based on 1, 2, and 5-acre sites. To be conservative, the construction thresholds for 5-acre sites were utilized.

The proposed project site is approximately 22.5 acres. Therefore, the operational LST thresholds for 5-acre sites have been utilized

Table 5-2 | SCAQMD Localized Significance Thresholds (LSTs)

Pollutant	Construction (lbs/day)[1]	Operation (lbs/day)[1]
NO_X	197.0	197.0
CO	1,711.0	1,711.0
PM_{10}	14.0	4.0
$PM_{2.5}$	9.0	2.0

[1] Source: SCAQMD Mass Rate Localized Significance Thresholds for 5 acres/day in SRA-20 at 25 meters.

5.3 GHG Significance Thresholds

5.3.1 SCAQMD GHG Interim Significance Thresholds

The SCAQMD has published the Interim CEQA Greenhouse Gas (GHG) Significance Thresholds, December 2008, to assist local agencies with determining the impact of a project's GHG emissions. SCAQMD's objective in providing the GHG guidelines is to establish a performance standard that will ultimately contribute to reducing GHG emissions below 1990 levels, and thus achieve the requirements of the California Global Warming Solutions Act (AB 32).

In the absence of a formal threshold established by the State, SCAQMD's interim GHG threshold has been established for use by lead agencies in determining significance of GHG emissions in CEQA. SCAQMD guidance describes a five-tiered approach for determining significance. Tier 3 is the primary method used for development projects of this size and is the approach used in this analysis. The Tier 3 approach limits the amount of GHG emissions from residential and commercial development projects to 3,000 metric tons of CO2 equivalents per year (MTCO2e/yr).

If the project exceeds 3,000 MTCO2e/yr, then the impact is considered significant, and mitigation measures would be required to reduce emissions below the threshold.

6.0 Air Quality Impact Analysis

6.1 Short-Term Air Quality Impacts – Construction

6.1.1 Regional Emissions – Construction

Regional air quality emissions include both on-site and off-site emissions associated with construction of the project. Based on the proposed construction schedule provided by the applicant, several construction phases are expected to overlap. To account for these overlapping activities, daily emissions were evaluated for each individual phase, as well as each combination of phases that are expected to overlap.

Tables 6-1 and **6-2** summarize the daily regional emissions associated with individual and overlapping construction phases, respectively. As shown in the tables below, daily emissions of criteria pollutants are expected to be below the allowable thresholds of significance.

CalEEMod emissions outputs are provided in **Appendix A**.

Table 6-1 | Regional Construction Emissions – Individual Phases

Activity	Maximum Daily Emissions (lbs./day)[1]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	3.21	42.25	72.59	0.20	15.59	3.70
Site Preparation	0.33	1.62	17.13	0.03	2.75	1.41
Grading	1.63	11.41	73.59	0.15	6.22	2.17
Building Construction	1.56	7.86	29.22	0.03	4.40	1.20
Paving	0.70	5.18	12.10	0.02	0.38	0.21
Architectural Coating	71.42	1.56	4.10	0.00	0.80	0.21
Maximum[1]	**71.42**	**42.25**	**73.59**	**0.20**	**15.59**	**3.70**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter; includes both onsite and offsite project emissions.

Table 6-2 | Regional Construction Emissions – Overlapping Phases

Activity	Maximum Daily Emissions (lbs./day)[1]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition + Building Construction	4.77	50.03	101.80	0.24	19.99	4.90
Site Preparation + Building Construction	1.90	9.48	46.35	0.06	7.15	2.60
Site Preparation + Paving	1.04	6.80	29.23	0.05	3.13	1.62
Grading + Building Construction	3.20	19.27	102.80	0.18	10.62	3.36
Building Construction + Paving	2.27	13.04	41.32	0.06	4.78	1.41
Paving + Architectural Coating	72.12	6.73	16.20	0.03	1.18	0.43
Maximum[1]	**72.12**	**50.03**	**102.80**	**0.24**	**19.99**	**4.90**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter; includes both onsite and offsite project emissions.

The project must follow mandatory SCAQMD rules and requirements with regards to fugitive dust control, as described in **Section 6.1.3**. Compliance with the standard dust control measures is considered to be part of the conditions of approval for the project.

Tables 6-1 and **6-2** show that the project's daily construction emissions will be below the applicable SCAQMD air quality standards and thresholds of significance. As a result, the project would not contribute substantially to an existing or projected air quality violation.

Furthermore, by complying with the SCAQMD standards, the project would not contribute to a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Therefore, the project's short-term construction impact on regional air resources will be less than significant.

6.1.2 Localized Emissions – Construction

Localized air quality emissions include on-site emissions associated with construction of the project. Based on the proposed construction schedule provided by the applicant, several construction phases are expected to overlap. To account for these overlapping activities, daily emissions were evaluated for each individual phase, as well as each combination of phases that are expected to overlap.

Tables 6-3 and **6-4** illustrate the construction-related localized emissions and compares the results to SCAQMD LST thresholds. As shown in the tables below, the emissions will be below the SCAQMD thresholds of significance for localized construction emissions. The project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, as described in **Section 6.1.3**.

Therefore, the project's short-term construction impact on localized air resources will be less than significant.

Table 6-3 | Localized Construction Emissions – Individual Phases

Activity	Maximum Daily Emissions (lbs./day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum On-site Emissions	27.00	70.77	11.50	2.45
SCAQMD Construction Threshold[2]	197.0	1,711.0	14.0	9.0
Exceeds Threshold?	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter; includes onsite project emissions.
[2] Source: SCAQMD Mass Rate Localized Significance Thresholds for 5 acres/day in SRA-20 at 25 meters.

Table 6-4 | Localized Construction Emissions – Overlapping Phases

Activity	Maximum Daily Emissions (lbs./day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition + Building Construction	32.57	78.21	11.70	2.64
Site Preparation + Building Construction	7.17	30.78	2.82	1.56
Site Preparation + Paving	6.72	28.07	2.80	1.54
Grading + Building Construction	14.07	84.89	5.35	2.05
Building Construction + Paving	10.71	25.52	0.39	0.36
Paving + Architectural Coating	6.54	12.94	0.22	0.20
Maximum[1]	**32.57**	**84.89**	**11.70**	**2.64**
SCAQMD Construction Threshold[2]	197.0	1,711.0	14.0	9.0
Exceeds Threshold?	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter; includes onsite project emissions.
[2] Source: SCAQMD Mass Rate Localized Significance Thresholds for 5 acres/day in SRA-20 at 25 meters.

6.1.3 Fugitive Dust – Construction

The Project is required to comply with standard SCAQMD rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut-and-fill grading operations, and exposure of soils to the air and wind. SCAQMD Rule 403 requires that fugitive dust is controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

6.1.4 Odors – Construction

Heavy-duty equipment in the project area during construction will emit odors; however, the construction activity would cease to occur after individual construction is completed. The project is required to comply with Rule 402 during construction, which states that a person 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. No other sources of objectionable odors have been identified for the proposed Project.

Therefore, the project impact from odor emissions will be less than significant.

6.1.5 Asbestos – Construction

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the Environmental Protection Agency (EPA) and regulated through the National Emissions Standards for Hazardous Air Pollutants (NESHAP). Asbestos fibers imbedded within construction materials become a health hazard once they are disturbed and rendered airborne, such as through physical contact like building renovation and demolition activities.

SCAQMD is the local enforcement authority for asbestos. SCAQMD Rule 1403 establishes the survey requirements, notification, and work practices to prevent asbestos emissions from emanating during building renovation and demolition activities. The project proposes to demolish the existing buildings and hardscape on the project site during construction. Compliance with Rule 1403 will ensure that the project does not result in asbestos emissions that would adversely affect a substantial number of people.

Asbestos also occurs naturally in serpentine and ultramafic rock. Based on the California Division of Mines and Geology General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, naturally occurring asbestos has not been shown to occur within the vicinity of the project site. Therefore, the potential risk for naturally occurring asbestos

(NOA) during project construction is small. However, in the event NOA is found on the site, the project will be required to comply with SCAQMD and NESHAP standards.

By following the required asbestos abatement protocols, the project impact will be less than significant.

6.1.6 Diesel Particulate Matter – Construction

The project will generate diesel particulate matter (DPM) during construction from off-road diesel equipment and trucks. The California Office of Environmental Health Hazard Assessment (OEHHA) adopted the Guidance Manual for Preparation of Health Risk Assessments (HRA Guidelines) to provide procedures for use in the Air Toxics Hot Spots Program or for the permitting of existing, new, or modified stationary sources[2].

The HRA Guidelines provide risk factors based on exposure to toxic substances over a 30-year lifetime span. The proposed project's construction activity is not expected to be a long-term (i.e., 30 years) source of toxic air contaminant emissions and short-term risk factors have not been developed. Due to the significantly reduced risk from short-term exposure, SCAQMD does not typically require the evaluation of long-term cancer risk or chronic health impacts for construction operations from a project such as the one being proposed.

In addition, the construction equipment proposed by the project includes the use of Tier 4 "clean diesel" engines for higher horsepower equipment such as excavators, dozers, scrapers, graders, off-highway trucks, and loaders. Tier 4 engines are equipped with advanced emission-control technologies, including diesel particulate filters and improved engine combustion systems, which substantially reduce DPM emissions compared to lower engine tiers. The use of Tier 4 equipment would reduce DPM emissions during construction and minimize the potential for associated health risks to nearby sensitive receptors.

6.2 Long-Term Air Quality Impacts – Operation

6.2.1 Regional Emissions – Operation

Long-term unmitigated operational air pollutant impacts from the project are shown in **Table 6-5**. CalEEMod emissions outputs are provided in **Appendix A**.

The project's daily unmitigated operational emissions will be below the applicable SCAQMD regional air quality standards and thresholds of significance, and the project would not contribute substantially to an existing or projected air quality violation. Furthermore, by complying with the SCAQMD standards, the project would not contribute to a cumulatively considerable net increase of any criteria

[2] OEHHA. Air Toxics Hot Spots Program. Risk Assessment Guidelines. Guidance for Preparation of Health Risk Assessments. February 2015.

pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Therefore, the project's long-term regional air quality impacts will be less than significant.

Table 6-5 | Regional Operational Emissions

Activity	Maximum Daily Emissions (lbs./day)[1]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	5.72	3.88	49.67	0.13	13.68	3.51
Area Sources	20.23	6.93	25.93	0.04	0.55	0.55
Energy Sources	0.04	0.72	0.31	0.00	0.06	0.06
Total	**25.99**	**11.53**	**75.91**	**0.17**	**14.29**	**4.12**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter; includes both onsite and offsite project emissions.

6.2.2 Localized Emissions – Operation

Table 6-6 shows the localized operational emissions and compares the results to SCAQMD LST thresholds of significance. As shown in **Table 6-6**, the emissions will be below the SCAQMD thresholds of significance for localized operational emissions.

Therefore, the project's long-term localized air quality impacts will be less than significant.

Table 6-6 | Localized Operational Emissions

Activity	Maximum Daily Emissions (lbs./day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Onsite Emissions	7.85	28.72	1.30	0.79
SCAQMD Localized Threshold[2]	197.0	1,711.0	4.0	2.0
Exceeds Threshold?	**No**	**No**	**No**	**No**

[1] Maximum daily emissions during summer or winter.

[2] Source: SCAQMD Mass Rate Localized Significance Thresholds for 5 acres/day in SRA-20 at 25 meters.

6.2.3 Odors – Operation

Land uses that commonly receive odor complaints include agricultural uses (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The proposed residential project does not contain land uses that would typically be associated with significant odor emissions.

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may 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. Project related odors are not expected to meet the criteria of being a nuisance.

Therefore, the project's operation would result in less than significant odor impacts.

6.2.4 Toxic Air Contaminants – Operations

The proposed project consists of residential land use and does not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. Examples of land uses that are major sources of TACs include distribution centers with heavy truck traffic, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing stations. The project does not include any of these uses, **hence the project impact is considered less than significant.**

6.3 SCAQMD Air Quality Management Plan Consistency

The purpose of this discussion is to evaluate the proposed project's consistency with the assumptions, growth projections, and control measures set forth in the 2022 South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). The 2022 AQMP serves as the regional attainment plan for achieving and maintaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) within the South Coast Air Basin. Accordingly, this analysis evaluates whether the proposed project would interfere with the AQMP's attainment strategy for federal and state air quality standards.

The SCAQMD CEQA Air Quality Handbook states that new or amended General Plan Elements, including land use zoning and density amendments, Specific Plans, and significant projects must be analyzed for consistency with the AQMP. Full conformity with every individual control measure in the AQMP is not required for a project-level consistency determination. Rather, a project is considered consistent if it does not conflict with or obstruct implementation of the AQMP control strategy and does not undermine the attainment demonstrations for applicable ambient air quality standards.

The SCAQMD CEQA Air Quality Handbook identifies two key indicators of consistency:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Consistency with the AQMP is evaluated below using these indicators.

6.3.1 Criterion 1 – Increase in the Frequency or Severity of Violations

Construction and operational emissions associated with the proposed project were quantified and compared to the SCAQMD regional and localized significance thresholds. As shown in the sections above, the project's short-term construction emissions and long-term operational emissions would not exceed applicable SCAQMD regional mass emission thresholds for criteria pollutants. In addition, localized significance thresholds would not be exceeded at nearby sensitive receptors.

SCAQMD's regional thresholds are designed to identify projects whose emissions would be cumulatively considerable and could interfere with attainment of the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS). Because the proposed project's emissions would remain below the applicable regional significance thresholds, project-related emissions would not be cumulatively considerable and would not contribute to an exceedance of an ambient air quality standard.

Accordingly, the proposed project would not increase the frequency or severity of existing violations, cause or contribute to new violations of the NAAQS or CAAQS, or delay timely attainment of applicable air quality standards as demonstrated in the 2022 AQMP. The project therefore would not conflict with or obstruct implementation of the AQMP attainment strategy and is consistent with Criterion 1 of the SCAQMD CEQA Air Quality Handbook.

6.3.2 Criterion 2 – Exceed Assumptions in the AQMP

The 2022 AQMP relies on regional population, housing, and employment growth forecasts prepared by the Southern California Association of Governments (SCAG) in its adopted Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). These regional forecasts form the basis of the AQMP's future year emissions inventories and attainment demonstrations for the NAAQS and CAAQS. The AQMP growth projections are developed at the regional level and are not based on parcel-specific land use designations. The AQMP incorporates projected increases in population, housing, and employment within the South Coast Air Basin consistent with SCAG regional forecasts.

The proposed project includes a General Plan Amendment and Zone Change to allow residential development on a site that is currently designated for Professional Office land uses. While the existing land use designation differs from the proposed residential use, the AQMP does not allocate growth

at the parcel level. Therefore, a change in land use designation at a specific site does not indicate inconsistency with the AQMP, provided that overall regional growth assumptions are not exceeded.

As a result, project consistency with this criterion is demonstrated by evaluating whether the population growth associated with the project would be consistent with the growth projections incorporated into the RTP/SCS and AQMP, as well as by evaluating whether the project would generate emissions that exceed the SCAQMD regional mass emission thresholds for criteria pollutants.

The proposed project consists of constructing 405 residential dwelling units. Based on default CalEEMod occupancy rates, the project would result in an increase of approximately 1,207 residents. SCAG's 2024 RTP/SCS projects that the County of Orange's population will increase from approximately 3,188,000 in the year 2020 to approximately 3,439,000 by the year 2050, reflecting an increase of approximately 251,000 residents over the planning horizon. Per the City of Aliso Viejo Housing Element, the City had a population of approximately 50,044 in the year 2020. The addition of approximately 1,207 residents would represent approximately 0.48 percent of the total projected County population growth through 2050, and an approximately 2.41 percent increase in the City of Aliso Viejo's 2020 population. In this context, the addition of approximately 1,207 residents represents a small increment of growth relative to the demographic increases assumed in the RTP/SCS and incorporated into the 2022 AQMP.

Furthermore, as discussed in **Section 6** above, regional emissions generated by the project would not exceed the SCAQMD regional mass emission thresholds for criteria air pollutants. In addition, project-generated emissions would not be cumulatively considerable and would not interfere with attainment of the NAAQS or CAAQS.

Therefore, the proposed project would not exceed the growth assumptions used in the 2022 AQMP and would not conflict with or obstruct implementation of the AQMP attainment strategy. As such, the proposed project is consistent with Criterion 2 of the SCAQMD CEQA Air Quality Handbook.

7.0 Greenhouse Gas Impact Analysis

7.1 Greenhouse Gas Emissions – Construction

Greenhouse gas emissions are estimated for on-site and off-site construction activity using CalEEMod. **Table 7-1** shows the construction greenhouse gas emissions, including equipment and worker vehicle emissions for all phases of construction.

CalEEMod GHG output calculations are provided in **Appendix A**.

Table 7-1 | Construction Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e$)[1]		
	Onsite	Offsite	Total
Demolition	423.39	475.02	898.41
Site Preparation	201.45	7.64	209.09
Grading	389.47	76.74	466.22
Building Construction	422.87	835.18	1,258.05
Paving	254.99	18.35	273.34
Architectural Coating	6.76	22.08	28.84
Total	**1,698.93**	**1,435.02**	**3,133.95**
Amortized Over 30 Years[2]	**56.63**	**47.83**	**104.46**

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbons).

[2] The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

Because impacts from construction activities occur over a relatively short period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. Therefore, the SCAQMD recommends assessing construction GHG impacts by amortizing emissions over a 30-year project lifetime and adding them to the overall project operational emissions. Pursuant to SCAQMD recommendations, this study assesses construction related GHG emissions along with the project's operational emissions, as further discussed in the section below.

7.2 Greenhouse Gas Emissions – Operations

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. **Table 7-2** shows the project's operational greenhouse gas emissions, along with the project's amortized construction emissions.

Appendix A provides the CalEEMod emissions outputs for this study.

Table 7-2 | Operational Greenhouse Gas Emissions

Emission Source	Unmitigated GHG Emissions ($MTCO_2e/yr.$)[1]
Mobile Source	2,182.24
Area Source	103.81
Energy Source	310.67
Water	51.85
Waste	96.42
Refrigerant	0.91
Construction (30-year amortization)	104.46
Total Annual Emissions	**2,850.36**
SCAQMD Tier 3 Significance Threshold	3,000
Exceeds Threshold?	**No**

[1] $MTCO_2e/yr.$ = metric tons of carbon dioxide equivalents per year.

As shown in **Table 7-2**, the proposed project's GHG emissions are not expected to exceed the SCAQMD GHG emissions threshold of 3,000 $MTCO_2e$.

Therefore, the proposed project's impact from GHG emissions will be less than significant.

8.0 Energy Impact Analysis

8.1 Study Objectives

The purpose of this energy conservation analysis is to review the energy implications of the proposed project and provide recommendations to reduce wasteful, inefficient, and unnecessary consumption of energy during the operation of the project. This analysis has been prepared within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

CEQA Guidelines, Appendix F, Energy Conservation, describes the framework within which energy conservation should be analyzed. Conserving energy implies the wise and efficient use of energy through decreasing overall per capita energy consumption, decreasing reliance on fossil fuels (such as coal, natural gas, and oil), and increasing reliance on renewable energy sources.

8.2 Utility Providers

The proposed project would be served by the utility providers shown in **Table 8-1** below.

Table 8-1 | Utility Providers[1]

Utility	Provider
Electricity	San Diego Gas & Electric
Natural Gas	Southern California Gas Company

[1] CalEEMod defaults.

8.3 Project Energy Consumption

The three (3) main types of energy expected to be consumed by the project include electricity, natural gas, and petroleum products in the form of gasoline and diesel fuel. CalEEMod is used to calculate energy usage associated with the construction and operation of the project.

The CalEEMod calculation sheets for the project are provided in **Appendix A**. The EMFAC2025 vehicle fuel consumption data used for this analysis is provided in **Appendix B**.

8.3.1 Electricity Consumption

The project will use electricity for operational activities including, but not limited to, building heating and cooling, lighting, appliances, electronics, mechanical equipment, and parking lot lighting. Indirect electricity usage will also be required to supply, distribute, and treat water and wastewater. Electricity will be provided to the site by San Diego Gas & Electric.

Temporary electricity usage for construction activities may include lighting, electric equipment, and mobile office uses. However, CalEEMod does not calculate electricity usage during construction. Electricity usage during construction is expected to be short-term and relatively minor compared to the operational demand. Therefore, construction-related electricity usage is not included in this analysis.

Table 8-2 shows the project's estimated operational electricity consumption in kilowatt-hours per year (kWh/yr) and millions of BTU per year (MMBTU/yr).

Table 8-2 | Project Electricity Consumption[1]

Land Use/Activity	Electricity Consumption	
	(KWh/yr.)[2]	(MMBTU/yr.)[3]
Condo/Townhouse High Rise	323,522.39	1,103.86
Recreational Swimming Pool	--	--
Parking Lot	266,394.22	908.94
Water Supply and Treatment	119,087.67	406.33
Total	**709,004.28**	**2,419.13**

[1] CalEEMod defaults.
[2] KWHr/yr. = kilowatt hours per year.
[3] MMBTU/yr. = million British Thermal Units per year.

8.3.2 Natural Gas Consumption

The project will use natural gas for such things as building heating and cooling and gas water heaters. Natural gas is not expected to be used during construction in any significant quantities and is not included in the overall calculation of the project's natural gas consumption.

Table 8-3 shows the project's estimated operational natural gas consumption in MMBTU/yr.

Table 8-3 | Project Natural Gas Consumption[1]

Land Use/Activity	Natural Gas Consumption (MMBTU/yr.)[2]
Condo/Townhouse High Rise	2,866.77
Recreational Swimming Pool	--
Parking Lot	--
Total	**2,866.77**

[1] CalEEMod defaults.
[2] MMBTU/yr. = million British Thermal Units per year.

8.3.3 Petroleum Consumption

The project's energy consumption from petroleum products is primarily associated with transportation-related activities. This includes gasoline and diesel fuel usage for auto and truck trips during construction and operation and off-road equipment usage during construction.

8.3.3.1 Petroleum Consumption – Construction

Construction of the project is expected to consist of demolition, site preparation, grading, building construction, paving, and architectural coating phases. Construction activities will consume energy in the form of motor vehicle fuel (gasoline and diesel) for off-road construction equipment and on-road vehicle trips. Vehicle trips include workers and vendors traveling to and from the project site.

Table 8-4 and **Table 8-5** show the project's energy consumption for all off-road and on-road equipment during construction, respectively. For the purposes of this analysis, all off-road equipment is assumed to run on diesel fuel.

Table 8-4 | Construction Off-Road Equipment Energy Consumption

Phase[1]	Phase Duration (Days)[1]	Equipment[1]	Amount[1]	Hrs./Day[1]	Horsepower (HP)[1]	Load Factor[1]	HP-hrs.[2]	Fuel Consumption Rate (HP-hrs./gal.)[3]	Diesel Fuel Consumption (Gal.)	Diesel Fuel Consumption by Phase (Gal.)	MMBTU[4]
Demolition	75	Concrete/Industrial Saws	1	8	33	0.73	14,454.0	18.5	781.3	43,059.57	5,915.57
		Excavators	5	8	380	0.38	433,200.0		23,416.2		
		Rubber Tired Dozers	2	8	367	0.40	176,160.0		9,522.2		
		Skid Steer Loaders	4	8	73	0.37	64,824.0		3,504.0		
		Forklifts	1	4	40	0.20	2,400.0		129.7		
		Off-Highway Trucks	1	8	463	0.38	105,564.0		5,706.2		
Site Preparation	137	Rubber Tired Dozers	1	8	249	0.40	109,161.6		5,900.6	20,537.86	2,821.51
		Tractors/Loaders/Backhoes	1	8	107	0.37	43,390.6		2,345.4		
		Excavators	2	8	273	0.38	227,398.1		12,291.8		
Grading	60	Excavators	2	8	36	0.38	13,132.8		709.9	39,603.89	5,440.82
		Graders	2	8	191	0.41	75,177.6		4,063.7		
		Rubber Tired Dozers	1	8	405	0.40	77,760.0		4,203.2		
		Scrapers	4	8	407	0.48	375,091.2		20,275.2		
		Tractors/Loaders/Backhoes	2	8	311	0.37	110,467.2		5,971.2		
		Crawler Tractors	1	8	238	0.43	49,123.2		2,655.3		
		Off-Highway Trucks	1	8	175	0.38	31,920.0		1,725.4		
Building Construction	370	Cranes	1	7	367	0.29	275,653.7		14,900.2	43,962.60	6,039.63
		Forklifts	3	8	82	0.20	145,632.0		7,872.0		
		Generator Sets	1	8	14	0.74	30,665.6		1,657.6		
		Tractors/Loaders/Backhoes	3	8	84	0.37	275,990.4		14,918.4		
		Welders	1	8	46	0.45	61,272.0		3,312.0		
		Pumps	1	8	11	0.74	24,094.4		1,302.4		
Paving	221	Pavers	1	8	225	0.42	167,076.0		9,031.1	26,049.81	3,578.75
		Paving Equipment	2	8	89	0.36	113,293.4		6,124.0		
		Rollers	3	8	100	0.38	201,552.0		10,894.7		
Architectural Coating	69	Air Compressors	1	6	37	0.48	7,352.6		397.4	640.32	87.97
		Pumps	1	8	11	0.74	4,493.3		242.9		
Total Energy Requirements										**173,854.05**	**23,884.25**

[1] CalEEMod defaults.
[2] HP-hrs. = Horsepower hours.
[3] Source: Carl Moyer Program Guidelines. 2017 Revisions. Table D-21. https://www.arb.ca.gov/msprog/moyer/guidelines/current.htm.
[4] MMBTU = Millions of BTU, assuming 1 gallon of diesel fuel = 137,381 BTU.

Table 8-5 | Construction On-Road Equipment Energy Consumption

Phase[1]	Phase Duration (Days)[1]	Trips per Day[1]	Trip Length	Phase VMT	Vehicle Class[1]	Vehicle Mix[1]	Average Fuel Economy (MPG)[2]	Gasoline			Diesel			Total MMBTU[3]
								Fuel Split[2]	Fuel Consumption by Vehicle Class (Gal.)	Fuel Consumption by Phase (Gal.)	Fuel Split[2]	Fuel Consumption by Vehicle Class (Gal.)	Fuel Consumption by Phase (Gal.)	
Worker Trips														
Demolition	75	35	18.5	48,563	LDA	0.50	27.13	0.9990	894.15	1,968.51	0.0010	0.87	1.65	237.29
					LDT1	0.25	22.47	0.9999	540.18		0.0001	0.06		
					LDT2	0.25	22.70	0.9986	534.19		0.0014	0.72		
Site Preparation	137	10	18.5	25,345	LDA	0.50	27.13	0.9990	466.66	1,027.37	0.0010	0.45	0.86	123.84
					LDT1	0.25	22.47	0.9999	281.92		0.0001	0.03		
					LDT2	0.25	22.70	0.9986	278.79		0.0014	0.38		
Grading	60	33	18.5	36,630	LDA	0.50	27.13	0.9990	674.44	1,484.82	0.0010	0.66	1.25	178.99
					LDT1	0.25	22.47	0.9999	407.45		0.0001	0.05		
					LDT2	0.25	22.70	0.9986	402.93		0.0014	0.55		
Building Construction	370	292	18.5	1,998,740	LDA	0.50	27.13	0.9990	36,801.33	81,020.14	0.0010	35.79	68.05	9,766.52
					LDT1	0.25	22.47	0.9999	22,232.77		0.0001	2.51		
					LDT2	0.25	22.70	0.9986	21,986.04		0.0014	29.75		
Paving	221	15	18.5	61,328	LDA	0.50	27.13	0.9990	1,129.18	2,485.95	0.0010	1.10	2.09	299.67
					LDT1	0.25	22.47	0.9999	682.17		0.0001	0.08		
					LDT2	0.25	22.70	0.9986	674.60		0.0014	0.91		
Architectural Coating	69	59	18.5	75,314	LDA	0.50	27.13	0.9990	1,386.69	3,052.88	0.0010	1.35	2.56	368.01
					LDT1	0.25	22.47	0.9999	837.74		0.0001	0.09		
					LDT2	0.25	22.70	0.9986	828.44		0.0014	1.12		
Subtotal Worker Trips Energy Consumption								*Gasoline (Gal.)*		*91,039.67*	*Diesel (Gal.)*		76.47	10,974.32
Vendor Trips														
Building Construction	370	44	10.2	166,056	MHDT	0.50	7.75	0.3644	3,904.82	3,911.74	0.6356	6,811.33	19,525.62	3,153.54
					HHDT	0.50	6.53	0.0005	6.92		0.9995	12,714.29		
Subtotal Vendor Trips Energy Consumption								*Gasoline (Gal.)*		*3,911.74*	*Diesel (Gal.)*		*19,525.62*	*3,153.54*
Hauling Trips														
Demolition	75	192	20.0	288,000	HHDT	1.00	6.53	0.0005	24.01	24.01	0.9995	44,102.18	44,102.18	6,061.69
Grading	60	35	20.0	42,000	HHDT	1.00	6.53	0.0005	3.50	3.50	0.9995	6,431.57	6,431.57	884.00
Subtotal Hauling Trips Energy Consumption								*Gasoline (gal.)*		*27.51*	*Diesel (gal.)*		*50,533.75*	*6,945.69*
Total On-Road Construction Trips Energy Consumption								**Gasoline (Gal.)**		**94,978.92**	**Diesel (gal.)**		**70,135.84**	**21,073.55**

[1] CalEEMod defaults.

[2] HP-hrs. = Horsepower hours.

[3] Source: Carl Moyer Program Guidelines. 2017 Revisions. Table D-21. https://www.arb.ca.gov/msprog/moyer/guidelines/current.htm.

[4] MMBTU = Millions of BTU, assuming 1 gallon of diesel fuel = 137,381 BTU.

8.3.3.2 Petroleum Consumption – Operation

The project is expected to consume energy from auto and truck trips generated by the proposed land uses. Operational vehicle trips are associated with workers, customers, and vendors/non-workers (i.e., delivery, service, maintenance vehicles, etc.) traveling to and from the site. EMFAC2025 vehicle fuel consumption data is provided in **Appendix B**.

Table 8-6 shows the project's petroleum energy consumption for all operational trips generated by the project on an annual basis.

Table 8-6 | Operational Trips Energy Consumption - Annual

Vehicle Class	Vehicle Mix	Average Fuel Economy (MPG)	Annual VMT	Gasoline		Diesel		MMBTU
				Fuel Split	Fuel Consumption (Gal.)	Fuel Split	Fuel Consumption (Gal.)	
LDA	49.77%	27.13	7,037,920	0.9990	128,981.39	0.0010	125.45	15,550.33
LDT1	3.93%	22.47		0.9999	12,301.45	0.0001	1.39	1,481.64
LDT2	24.34%	22.70		0.9986	75,381.56	0.0014	101.99	9,092.14
MDV	14.80%	18.65		0.9728	54,328.67	0.0272	1,520.16	6,751.59
LHD1	2.87%	16.19		0.7435	9,289.78	0.2565	3,204.52	1,559.00
LHD2	0.44%	16.91		0.3510	640.02	0.6490	1,183.24	239.63
MHD	0.91%	7.75		0.3644	3,003.47	0.6356	5,239.09	1,081.46
HHD	0.35%	6.53		0.0005	2.03	0.9995	3,721.27	511.48
OBUS	0.03%	6.18		0.5606	219.78	0.4394	172.27	50.13
UBUS	0.02%	5.13		0.9856	276.15	0.0144	4.02	33.81
MCY	2.29%	39.30		1.0000	4,094.37	0.0000	0.00	493.08
SBUS	0.06%	8.72		0.6483	291.82	0.3517	158.29	56.89
MH	0.20%	5.72		0.8344	2,038.09	0.1656	404.59	301.03
Total Operational Trips Energy Usage				**Gasoline Consumption (gal.)**	**290,848.58**	**Diesel Consumption (gal.)**	**15,836.28**	**37,202.21**

8.4 Summary of Project Energy Consumption

Table 8-7 provides a summary of the project's annual operational energy consumption.

Table 8-7 | Total Annual Energy Consumption

Activity	Energy Consumption (MMBTU/yr.)[1]
Operational Electricity	2,419.13
Operational Natural Gas	2,866.77
Operational Petroleum	37,202.21
Total	**42,488.11**

[1] MMBTU/yr. = Million British Thermal Units per year.

8.5 Energy Impacts

This analysis has been prepared within the context of the CEQA Guidelines, Appendix F, Energy Conservation, and Appendix G, Environmental Checklist Form. According to CEQA, the goal of conserving energy implies the wise and efficient use of energy through decreasing overall per capita energy consumption, decreasing reliance on fossil fuels (such as coal, natural gas, and oil), and increasing reliance on renewable energy sources.

A significant environmental impact would result if the project would:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

8.5.1 Energy Impact – A

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

The project will implement the mandatory requirements of California's Building Efficiency Standards (Title 24, Part 6) to reduce energy consumption. California's building standards are some of the strictest in the nation and the project's compliance with the Building Code will ensure that wasteful, inefficient or unnecessary consumption of energy is minimized. The California Building Code is designed to reduce the amount of energy needed to heat or cool a building, reduce energy usage for lighting and appliances and promote usage of energy from renewable sources.

In particular, the project is expected to comply with Section 110.10 of the building code regarding mandatory requirements for solar readiness and/or rooftop solar zones.

Hence, the project will not result in wasteful, inefficient, or unnecessary consumption of energy resources, and the impact is considered less than significant.

8.5.2 Energy Impact – B

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

The project is not expected to conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The project will purchase electricity through San Diego Gas and Electric which is subject to the requirements of California Senate Bill 100 (SB 100). SB 100 is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045.[3]

The project will also comply with the mandatory requirements of California's Green Building and Building Energy Efficiency standards that promote renewable energy and energy efficiency.

Hence, the project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and the impact is considered less than significant.

[3] SB-100 California Renewables Portfolio Standard Program.
http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Appendices

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CalEEMod Emissions Outputs

Polaris Place Residential Project Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Polaris Place Residential Project
Construction Start Date	6/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	6.00000
Location	33.58549582447742, -117.72464269786572
County	Orange
City	Aliso Viejo
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6039
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	Southern California Gas
App Version	2022.1.1.44

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
Condo/Townhouse High Rise	405.000	Dwelling Unit	15.4600	769,059	190,000	—	1,207.00	—

Recreational Swimming Pool	1.64000	1000sqft	0.06000	681.000	0.00000	—	—	—
Parking Lot	304.103	1000sqft	6.98124	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Transportation	T-1	Increase Residential Density

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	72.2882	72.1088	50.0288	102.804	0.23829	1.29167	18.6970	19.9886	1.21889	3.67934	4.89822	—	33,299.0	33,299.0	1.70812	2.53551	40.9777	34,138.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	72.2866	72.1056	19.2714	100.584	0.18170	0.55035	10.0656	10.6159	0.53268	2.82968	3.36236	—	24,353.9	24,353.9	0.97423	0.84278	0.53852	24,629.9
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.7937	13.7371	12.5881	33.4667	0.07422	0.32712	4.92433	5.25145	0.31118	1.23374	1.45587	—	9,818.87	9,818.87	0.48356	0.61348	4.32209	10,018.0
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.51735	2.50703	2.29732	6.10767	0.01355	0.05970	0.89869	0.95839	0.05679	0.22516	0.26570	—	1,625.63	1,625.63	0.08006	0.10157	0.71557	1,658.60

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	6.49299	4.77272	50.0288	102.804	0.23829	1.29167	18.6970	19.9886	1.21889	3.67934	4.89822	—	33,299.0	33,299.0	1.70812	2.53551	40.9777	34,138.3
2028	2.99061	2.55116	14.1118	57.5775	0.08746	0.44176	7.06879	7.51055	0.41410	2.38680	2.80090	—	13,565.3	13,565.3	0.44364	0.27049	14.3710	13,671.3
2029	72.2882	72.1088	6.36630	16.1601	0.02634	0.20551	0.95911	1.16462	0.18907	0.22481	0.41388	—	3,659.93	3,659.93	0.12137	0.02719	2.36662	3,673.43
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.75155	3.18501	19.2714	100.584	0.18170	0.55035	10.0656	10.6159	0.53268	2.82968	3.36236	—	24,353.9	24,353.9	0.97423	0.84278	0.53852	24,629.9
2028	2.64381	2.21101	12.6914	43.5227	0.06400	0.38062	6.87272	7.13176	0.35296	2.34084	2.58684	—	10,655.9	10,655.9	0.34629	0.37203	0.36284	10,775.7
2029	72.2866	72.1056	11.9300	37.6422	0.05761	0.35559	4.38267	4.73826	0.32993	1.04285	1.37278	—	9,925.71	9,925.71	0.31120	0.36877	0.32253	10,043.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.69295	1.29119	12.5881	33.4667	0.07422	0.32712	4.92433	5.25145	0.31118	1.08487	1.39605	—	9,818.87	9,818.87	0.48356	0.61348	4.23059	10,018.0
2028	1.76467	1.49022	8.04653	30.5082	0.04499	0.23728	4.07285	4.31012	0.22213	1.23374	1.45587	—	7,605.27	7,605.27	0.24465	0.26692	4.32209	7,695.25
2029	13.7937	13.7371	1.75219	4.90696	0.00762	0.05403	0.45355	0.50758	0.04989	0.10729	0.15718	—	1,204.53	1,204.53	0.03820	0.03333	0.53152	1,215.95
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.30896	0.23564	2.29732	6.10767	0.01355	0.05970	0.89869	0.95839	0.05679	0.19799	0.25478	—	1,625.63	1,625.63	0.08006	0.10157	0.70042	1,658.60
2028	0.32205	0.27197	1.46849	5.56775	0.00821	0.04330	0.74329	0.78660	0.04054	0.22516	0.26570	—	1,259.14	1,259.14	0.04051	0.04419	0.71557	1,274.04
2029	2.51735	2.50703	0.31977	0.89552	0.00139	0.00986	0.08277	0.09263	0.00910	0.01958	0.02868	—	199.424	199.424	0.00632	0.00552	0.08800	201.315

2.2.2. Onsite Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	4.10009	3.61309	32.5719	84.8945	0.15612	1.11303	10.5868	11.6998	1.04025	1.60314	2.64339	—	16,767.7	16,767.7	0.68017	0.13603	0.00000	16,825.3
2028	1.86776	1.64741	12.0200	42.1546	0.07770	0.43200	2.55541	2.98741	0.40434	1.31332	1.71766	—	8,275.48	8,275.48	0.33569	0.06714	0.00000	8,303.88
2029	72.0585	71.9123	6.17946	12.9409	0.02634	0.20551	0.00000	0.20551	0.18907	0.00000	0.18907	—	2,752.86	2,752.86	0.11167	0.02233	0.00000	2,762.31
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.35608	2.20666	14.0745	84.8945	0.15612	0.51046	4.83580	5.34627	0.49279	1.55979	2.05258	—	16,767.7	16,767.7	0.68017	0.13603	0.00000	16,825.3
2028	1.56205	1.34170	10.4303	30.7718	0.05424	0.37085	2.55541	2.80469	0.34320	1.31332	1.54955	—	5,737.01	5,737.01	0.23272	0.04654	0.00000	5,756.70
2029	72.0585	71.9123	9.85545	25.4620	0.04785	0.34583	0.00000	0.34583	0.32017	0.00000	0.32017	—	5,043.39	5,043.39	0.20458	0.04092	0.00000	5,060.70
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.11946	1.01033	8.25359	28.1201	0.05111	0.28517	2.97029	3.25547	0.26924	0.58582	0.85505	—	5,481.44	5,481.44	0.22235	0.04447	0.00000	5,500.25
2028	0.98768	0.86491	6.43003	20.8809	0.03800	0.23029	0.95915	1.18944	0.21514	0.49294	0.70808	—	4,016.18	4,016.18	0.16291	0.03258	0.00000	4,029.96
2029	13.6857	13.6492	1.58413	3.56412	0.00699	0.05340	0.00000	0.05340	0.04926	0.00000	0.04926	—	728.898	728.898	0.02957	0.00591	0.00000	731.400
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.20430	0.18438	1.50628	5.13192	0.00933	0.05204	0.54208	0.59412	0.04914	0.10691	0.15605	—	907.515	907.515	0.03681	0.00736	0.00000	910.629
2028	0.18025	0.15785	1.17348	3.81077	0.00693	0.04203	0.17505	0.21707	0.03926	0.08996	0.12923	—	664.924	664.924	0.02697	0.00539	0.00000	667.206
2029	2.49764	2.49098	0.28910	0.65045	0.00128	0.00975	0.00000	0.00975	0.00899	0.00000	0.00899	—	120.677	120.677	0.00490	0.00098	0.00000	121.092

2.2.3. Offsite Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.39289	1.15963	17.4569	23.5897	0.09842	0.17864	8.11018	8.28882	0.17864	2.07619	2.25484	—	18,390.1	18,390.1	1.10335	2.41456	40.9777	19,178.2
2028	1.12285	0.90375	2.09178	15.4229	0.00976	0.00976	4.51338	4.52314	0.00976	1.07348	1.08324	—	5,289.80	5,289.80	0.10795	0.20335	14.3710	5,367.46
2029	0.22971	0.19655	0.18684	3.21920	0.00000	0.00000	0.95911	0.95911	0.00000	0.22481	0.22481	—	907.071	907.071	0.00971	0.00485	2.36662	911.126

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.39547	0.97834	5.19690	15.6894	0.02558	0.03989	5.22979	5.26968	0.03989	1.26989	1.30978	—	7,586.16	7,586.16	0.29406	0.70675	0.53852	7,804.66
2028	1.08176	0.86931	2.26107	12.9512	0.00976	0.00976	4.38267	4.39243	0.00976	1.04285	1.05261	—	4,978.69	4,978.69	0.11435	0.32786	0.36284	5,079.61
2029	1.04793	0.83453	2.07459	12.1802	0.00976	0.00976	4.38267	4.39243	0.00976	1.04285	1.05261	—	4,882.32	4,882.32	0.10662	0.32786	0.32253	4,983.01
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.57349	0.28086	4.33447	5.34657	0.02311	0.04195	1.95404	1.99598	0.04195	0.49905	0.54100	—	4,337.44	4,337.44	0.26121	0.56901	4.23059	4,517.76
2028	0.77699	0.62532	1.61649	9.62728	0.00699	0.00699	3.11369	3.12068	0.00699	0.74080	0.74779	—	3,589.09	3,589.09	0.08174	0.23433	4.32209	3,665.29
2029	0.10797	0.08795	0.16806	1.34285	0.00063	0.00063	0.45355	0.45418	0.00063	0.10729	0.10792	—	475.634	475.634	0.00863	0.02742	0.53152	484.552
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.10466	0.05126	0.79104	0.97575	0.00422	0.00766	0.35661	0.36427	0.00766	0.09108	0.09873	—	718.112	718.112	0.04325	0.09421	0.70042	747.967
2028	0.14180	0.11412	0.29501	1.75698	0.00128	0.00128	0.56825	0.56952	0.00128	0.13520	0.13647	—	594.215	594.215	0.01353	0.03880	0.71557	606.831
2029	0.01971	0.01605	0.03067	0.24507	0.00012	0.00012	0.08277	0.08289	0.00012	0.01958	0.01970	—	78.7467	78.7467	0.00143	0.00454	0.08800	80.2232

2.2.4. Total Construction Emissions by Year, Mitigated

Includes both onsite and offsite emissions.

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	6.49299	4.77272	50.0288	102.804	0.23829	1.29167	18.6970	19.9886	1.21889	3.67934	4.89822	—	33,299.0	33,299.0	1.70812	2.53551	40.9777	34,138.3
2028	2.99061	2.55116	14.1118	57.5775	0.08746	0.44176	7.06879	7.51055	0.41410	2.38680	2.80090	—	13,565.3	13,565.3	0.44364	0.27049	14.3710	13,671.3
2029	72.2882	72.1088	6.36630	16.1601	0.02634	0.20551	0.95911	1.16462	0.18907	0.22481	0.41388	—	3,659.93	3,659.93	0.12137	0.02719	2.36662	3,673.43
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.75155	3.18501	19.2714	100.584	0.18170	0.55035	10.0656	10.6159	0.53268	2.82968	3.36236	—	24,353.9	24,353.9	0.97423	0.84278	0.53852	24,629.9
2028	2.64381	2.21101	12.6914	43.5227	0.06400	0.38062	6.87272	7.13176	0.35296	2.34084	2.58684	—	10,655.9	10,655.9	0.34629	0.37203	0.36284	10,775.7

2029	72.2866	72.1056	11.9300	37.6422	0.05761	0.35559	4.38267	4.73826	0.32993	1.04285	1.37278	—	9,925.71	9,925.71	0.31120	0.36877	0.32253	10,043.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.69295	1.29119	12.5881	33.4667	0.07422	0.32712	4.92433	5.25145	0.31118	1.08487	1.39605	—	9,818.87	9,818.87	0.48356	0.61348	4.23059	10,018.0
2028	1.76467	1.49022	8.04653	30.5082	0.04499	0.23728	4.07285	4.31012	0.22213	1.23374	1.45587	—	7,605.27	7,605.27	0.24465	0.26692	4.32209	7,695.25
2029	13.7937	13.7371	1.75219	4.90696	0.00762	0.05403	0.45355	0.50758	0.04989	0.10729	0.15718	—	1,204.53	1,204.53	0.03820	0.03333	0.53152	1,215.95
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.30896	0.23564	2.29732	6.10767	0.01355	0.05970	0.89869	0.95839	0.05679	0.19799	0.25478	—	1,625.63	1,625.63	0.08006	0.10157	0.70042	1,658.60
2028	0.32205	0.27197	1.46849	5.56775	0.00821	0.04330	0.74329	0.78660	0.04054	0.22516	0.26570	—	1,259.14	1,259.14	0.04051	0.04419	0.71557	1,274.04
2029	2.51735	2.50703	0.31977	0.89552	0.00139	0.00986	0.08277	0.09263	0.00910	0.01958	0.02868	—	199.424	199.424	0.00632	0.00552	0.08800	201.315

2.2.5. Onsite Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	4.10009	3.61309	32.5719	84.8945	0.15612	1.11303	10.5868	11.6998	1.04025	1.60314	2.64339	—	16,767.7	16,767.7	0.68017	0.13603	0.00000	16,825.3
2028	1.86776	1.64741	12.0200	42.1546	0.07770	0.43200	2.55541	2.98741	0.40434	1.31332	1.71766	—	8,275.48	8,275.48	0.33569	0.06714	0.00000	8,303.88
2029	72.0585	71.9123	6.17946	12.9409	0.02634	0.20551	0.00000	0.20551	0.18907	0.00000	0.18907	—	2,752.86	2,752.86	0.11167	0.02233	0.00000	2,762.31
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.35608	2.20666	14.0745	84.8945	0.15612	0.51046	4.83580	5.34627	0.49279	1.55979	2.05258	—	16,767.7	16,767.7	0.68017	0.13603	0.00000	16,825.3
2028	1.56205	1.34170	10.4303	30.7718	0.05424	0.37085	2.55541	2.80469	0.34320	1.31332	1.54955	—	5,737.01	5,737.01	0.23272	0.04654	0.00000	5,756.70
2029	72.0585	71.9123	9.85545	25.4620	0.04785	0.34583	0.00000	0.34583	0.32017	0.00000	0.32017	—	5,043.39	5,043.39	0.20458	0.04092	0.00000	5,060.70
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.11946	1.01033	8.25359	28.1201	0.05111	0.28517	2.97029	3.25547	0.26924	0.58582	0.85505	—	5,481.44	5,481.44	0.22235	0.04447	0.00000	5,500.25
2028	0.98768	0.86491	6.43003	20.8809	0.03800	0.23029	0.95915	1.18944	0.21514	0.49294	0.70808	—	4,016.18	4,016.18	0.16291	0.03258	0.00000	4,029.96

2029	13.6857	13.6492	1.58413	3.56412	0.00699	0.05340	0.00000	0.05340	0.04926	0.00000	0.04926	—	728.898	728.898	0.02957	0.00591	0.00000	731.400
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.20430	0.18438	1.50628	5.13192	0.00933	0.05204	0.54208	0.59412	0.04914	0.10691	0.15605	—	907.515	907.515	0.03681	0.00736	0.00000	910.629
2028	0.18025	0.15785	1.17348	3.81077	0.00693	0.04203	0.17505	0.21707	0.03926	0.08996	0.12923	—	664.924	664.924	0.02697	0.00539	0.00000	667.206
2029	2.49764	2.49098	0.28910	0.65045	0.00128	0.00975	0.00000	0.00975	0.00899	0.00000	0.00899	—	120.677	120.677	0.00490	0.00098	0.00000	121.092

2.2.6. Offsite Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.39289	1.15963	17.4569	23.5897	0.09842	0.17864	8.11018	8.28882	0.17864	2.07619	2.25484	—	18,390.1	18,390.1	1.10335	2.41456	40.9777	19,178.2
2028	1.12285	0.90375	2.09178	15.4229	0.00976	0.00976	4.51338	4.52314	0.00976	1.07348	1.08324	—	5,289.80	5,289.80	0.10795	0.20335	14.3710	5,367.46
2029	0.22971	0.19655	0.18684	3.21920	0.00000	0.00000	0.95911	0.95911	0.00000	0.22481	0.22481	—	907.071	907.071	0.00971	0.00485	2.36662	911.126
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.39547	0.97834	5.19690	15.6894	0.02558	0.03989	5.22979	5.26968	0.03989	1.26989	1.30978	—	7,586.16	7,586.16	0.29406	0.70675	0.53852	7,804.66
2028	1.08176	0.86931	2.26107	12.9512	0.00976	0.00976	4.38267	4.39243	0.00976	1.04285	1.05261	—	4,978.69	4,978.69	0.11435	0.32786	0.36284	5,079.61
2029	1.04793	0.83453	2.07459	12.1802	0.00976	0.00976	4.38267	4.39243	0.00976	1.04285	1.05261	—	4,882.32	4,882.32	0.10662	0.32786	0.32253	4,983.01
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.57349	0.28086	4.33447	5.34657	0.02311	0.04195	1.95404	1.99598	0.04195	0.49905	0.54100	—	4,337.44	4,337.44	0.26121	0.56901	4.23059	4,517.76
2028	0.77699	0.62532	1.61649	9.62728	0.00699	0.00699	3.11369	3.12068	0.00699	0.74080	0.74779	—	3,589.09	3,589.09	0.08174	0.23433	4.32209	3,665.29
2029	0.10797	0.08795	0.16806	1.34285	0.00063	0.00063	0.45355	0.45418	0.00063	0.10729	0.10792	—	475.634	475.634	0.00863	0.02742	0.53152	484.552
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.10466	0.05126	0.79104	0.97575	0.00422	0.00766	0.35661	0.36427	0.00766	0.09108	0.09873	—	718.112	718.112	0.04325	0.09421	0.70042	747.967
2028	0.14180	0.11412	0.29501	1.75698	0.00128	0.00128	0.56825	0.56952	0.00128	0.13520	0.13647	—	594.215	594.215	0.01353	0.03880	0.71557	606.831
2029	0.01971	0.01605	0.03067	0.24507	0.00012	0.00012	0.08277	0.08289	0.00012	0.01958	0.01970	—	78.7467	78.7467	0.00143	0.00454	0.08800	80.2232

2.3. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	28.7736	27.5638	12.1786	89.5228	0.21634	0.69892	17.3389	18.0378	0.69021	4.39719	5.08740	195.764	27,729.4	27,925.1	20.6260	0.66310	48.7152	28,687.1
Mit.	27.0626	25.9952	11.2060	75.9054	0.18023	0.68029	13.6082	14.2884	0.67289	3.45107	4.12396	195.764	24,053.8	24,249.5	20.4806	0.54139	39.4192	24,962.3
% Reduced	6%	6%	8%	15%	17%	3%	22%	21%	3%	22%	19%	—	13%	13%	1%	18%	19%	13%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	26.6375	25.5316	12.3834	61.9298	0.20854	0.68830	17.3389	18.0272	0.68219	4.39719	5.07938	195.764	26,979.7	27,175.4	20.6520	0.69240	6.63147	27,904.7
Mit.	24.9319	23.9703	11.3202	49.2861	0.17389	0.66967	13.6082	14.2778	0.66487	3.45107	4.11594	195.764	23,452.2	23,647.9	20.5004	0.56428	6.39044	24,335.0
% Reduced	6%	6%	9%	20%	17%	3%	22%	21%	3%	22%	19%	—	13%	13%	1%	19%	4%	13%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	27.2905	26.4748	6.32113	76.4931	0.17112	0.18960	17.2720	17.4616	0.18171	4.38047	4.56218	195.764	19,263.9	19,459.7	20.4994	0.67985	24.1663	20,199.0
Mit.	25.5979	24.9263	5.24765	63.5424	0.13607	0.17097	13.5557	13.7266	0.16440	3.43794	3.60234	195.764	15,696.5	15,892.2	20.3489	0.55128	20.1524	16,585.4
% Reduced	6%	6%	17%	17%	20%	10%	22%	21%	10%	22%	21%	—	19%	18%	1%	19%	17%	18%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.98051	4.83165	1.15361	13.9600	0.03123	0.03460	3.15214	3.18674	0.03316	0.79943	0.83260	32.4109	3,189.37	3,221.78	3.39391	0.11256	4.00101	3,344.17
Mit.	4.67163	4.54905	0.95770	11.5965	0.02483	0.03120	2.47391	2.50511	0.03000	0.62742	0.65743	32.4109	2,598.73	2,631.14	3.36899	0.09127	3.33647	2,745.90
% Reduced	6%	6%	17%	17%	20%	10%	22%	21%	10%	22%	21%	—	19%	18%	1%	19%	17%	18%

2.4. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.95205	7.29004	4.52040	63.2884	0.16784	0.08658	17.3389	17.4254	0.08047	4.39719	4.47766	—	17,082.6	17,082.6	0.67585	0.56567	43.2039	17,311.3
Area	20.7368	20.2314	6.93444	25.9264	0.04388	0.55382	—	0.55382	0.55122	—	0.55122	0.00000	8,589.19	8,589.19	0.16315	0.01657	—	8,598.20
Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	28.7736	27.5638	12.1786	89.5228	0.21634	0.69892	17.3389	18.0378	0.69021	4.39719	5.08740	195.764	27,729.4	27,925.1	20.6260	0.66310	48.7152	28,687.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.92653	7.25607	4.94135	58.7630	0.16104	0.08660	17.3389	17.4255	0.08049	4.39719	4.47768	—	16,394.5	16,394.5	0.70446	0.59548	1.12019	16,590.7
Area	18.6262	18.2331	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	26.6375	25.5316	12.3834	61.9298	0.20854	0.68830	17.3389	18.0272	0.68219	4.39719	5.07938	195.764	26,979.7	27,175.4	20.6520	0.69240	6.63147	27,904.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.86626	7.19685	4.98908	60.1896	0.16287	0.08659	17.2720	17.3586	0.08048	4.38047	4.46095	—	16,580.2	16,580.2	0.69966	0.59753	18.6551	16,794.4
Area	19.3395	19.2356	0.60824	15.9955	0.00362	0.04449	—	0.04449	0.04271	—	0.04271	0.00000	626.246	626.246	0.01276	0.00145	—	626.997
Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	27.2905	26.4748	6.32113	76.4931	0.17112	0.18960	17.2720	17.4616	0.18171	4.38047	4.56218	195.764	19,263.9	19,459.7	20.4994	0.67985	24.1663	20,199.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.43559	1.31343	0.91051	10.9846	0.02972	0.01580	3.15214	3.16794	0.01469	0.79943	0.81412	—	2,745.04	2,745.04	0.11584	0.09893	3.08856	2,780.50
Area	3.52946	3.51050	0.11100	2.91918	0.00066	0.00812	—	0.00812	0.00779	—	0.00779	0.00000	103.682	103.682	0.00211	0.00024	—	103.806
Energy	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	309.712	309.712	0.02229	0.00136	—	310.673
Water	—	—	—	—	—	—	—	—	—	—	—	4.85237	30.9349	35.7872	0.49929	0.01203	—	51.8549
Waste	—	—	—	—	—	—	—	—	—	—	—	27.5586	0.00000	27.5586	2.75438	0.00000	—	96.4181
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91245	0.91245
Total	4.98051	4.83165	1.15361	13.9600	0.03123	0.03460	3.15214	3.18674	0.03316	0.79943	0.83260	32.4109	3,189.37	3,221.78	3.39391	0.11256	4.00101	3,344.17

2.5. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.24105	5.72148	3.54777	49.6709	0.13173	0.06795	13.6082	13.6761	0.06316	3.45107	3.51422	—	13,407.1	13,407.1	0.53043	0.44395	33.9079	13,586.5
Area	20.7368	20.2314	6.93444	25.9264	0.04388	0.55382	—	0.55382	0.55122	—	0.55122	0.00000	8,589.19	8,589.19	0.16315	0.01657	—	8,598.20
Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	27.0626	25.9952	11.2060	75.9054	0.18023	0.68029	13.6082	14.2884	0.67289	3.45107	4.12396	195.764	24,053.8	24,249.5	20.4806	0.54139	39.4192	24,962.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.22102	5.69482	3.87815	46.1192	0.12639	0.06797	13.6082	13.6761	0.06318	3.45107	3.51424	—	12,867.0	12,867.0	0.55288	0.46735	0.87917	13,021.0
Area	18.6262	18.2331	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43

Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	24.9319	23.9703	11.3202	49.2861	0.17389	0.66967	13.6082	14.2778	0.66487	3.45107	4.11594	195.764	23,452.2	23,647.9	20.5004	0.56428	6.39044	24,335.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.17372	5.64834	3.91560	47.2389	0.12783	0.06796	13.5557	13.6236	0.06316	3.43794	3.50111	—	13,012.7	13,012.7	0.54912	0.46896	14.6412	13,180.8
Area	19.3395	19.2356	0.60824	15.9955	0.00362	0.04449	—	0.04449	0.04271	—	0.04271	0.00000	626.246	626.246	0.01276	0.00145	—	626.997
Energy	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	1,870.68	1,870.68	0.13464	0.00819	—	1,876.48
Water	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Waste	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Total	25.5979	24.9263	5.24765	63.5424	0.13607	0.17097	13.5557	13.7266	0.16440	3.43794	3.60234	195.764	15,696.5	15,892.2	20.3489	0.55128	20.1524	16,585.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.12670	1.03082	0.71460	8.62110	0.02333	0.01240	2.47391	2.48631	0.01153	0.62742	0.63895	—	2,154.40	2,154.40	0.09091	0.07764	2.42401	2,182.24
Area	3.52946	3.51050	0.11100	2.91918	0.00066	0.00812	—	0.00812	0.00779	—	0.00779	0.00000	103.682	103.682	0.00211	0.00024	—	103.806
Energy	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	309.712	309.712	0.02229	0.00136	—	310.673
Water	—	—	—	—	—	—	—	—	—	—	—	4.85237	30.9349	35.7872	0.49929	0.01203	—	51.8549
Waste	—	—	—	—	—	—	—	—	—	—	—	27.5586	0.00000	27.5586	2.75438	0.00000	—	96.4181
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91245	0.91245
Total	4.67163	4.54905	0.95770	11.5965	0.02483	0.03120	2.47391	2.50511	0.03000	0.62742	0.65743	32.4109	2,598.73	2,631.14	3.36899	0.09127	3.33647	2,745.90

3. Construction Emissions Details

3.1. Demolition (2027)

3.1.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.28307	2.91080	26.9961	64.0944	0.11547	0.90980	—	0.90980	0.85127	—	0.85127	—	12,403.0	12,403.0	0.50312	0.10062	—	12,445.5
Demolition	—	—	—	—	—	—	10.5868	10.5868	—	1.60314	1.60314	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67460	0.59811	5.54715	13.1701	0.02373	0.18695	—	0.18695	0.17492	—	0.17492	—	2,548.55	2,548.55	0.10338	0.02068	—	2,557.30
Demolition	—	—	—	—	—	—	2.17537	2.17537	—	0.32941	0.32941	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12312	0.10916	1.01235	2.40354	0.00433	0.03412	—	0.03412	0.03192	—	0.03192	—	421.942	421.942	0.01712	0.00342	—	423.390
Demolition	—	—	—	—	—	—	0.39700	0.39700	—	0.06012	0.06012	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11651	0.09992	0.10494	1.73074	0.00000	0.00000	0.45748	0.45748	0.00000	0.10723	0.10723	—	448.083	448.083	0.00463	0.01659	1.42076	454.563
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	1.19905	0.19843	15.1443	6.76364	0.08866	0.16888	3.46609	3.63497	0.16888	0.97207	1.14095	—	12,868.9	12,868.9	0.99217	2.07722	24.5121	13,537.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02378	0.02037	0.02481	0.31893	0.00000	0.00000	0.09364	0.09364	0.00000	0.02194	0.02194	—	88.8235	88.8235	0.00111	0.00341	0.12625	89.9933
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.24551	0.03904	3.26106	1.39499	0.01822	0.03470	0.71007	0.74477	0.03470	0.19921	0.23391	—	2,644.71	2,644.71	0.20387	0.42683	2.17349	2,779.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00434	0.00372	0.00453	0.05820	0.00000	0.00000	0.01709	0.01709	0.00000	0.00400	0.00400	—	14.7057	14.7057	0.00018	0.00056	0.02090	14.8994
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04481	0.00712	0.59514	0.25459	0.00332	0.00633	0.12959	0.13592	0.00633	0.03635	0.04269	—	437.863	437.863	0.03375	0.07067	0.35985	460.125

3.1.3. Onsite - Mitigated

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

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

Off-Road Equipment	3.28307	2.91080	26.9961	64.0944	0.11547	0.90980	—	0.90980	0.85127	—	0.85127	—	12,403.0	12,403.0	0.50312	0.10062	—	12,445.5
Demolition	—	—	—	—	—	—	10.5868	10.5868	—	1.60314	1.60314	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67460	0.59811	5.54715	13.1701	0.02373	0.18695	—	0.18695	0.17492	—	0.17492	—	2,548.55	2,548.55	0.10338	0.02068	—	2,557.30
Demolition	—	—	—	—	—	—	2.17537	2.17537	—	0.32941	0.32941	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12312	0.10916	1.01235	2.40354	0.00433	0.03412	—	0.03412	0.03192	—	0.03192	—	421.942	421.942	0.01712	0.00342	—	423.390
Demolition	—	—	—	—	—	—	0.39700	0.39700	—	0.06012	0.06012	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.4. Offsite - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11651	0.09992	0.10494	1.73074	0.00000	0.00000	0.45748	0.45748	0.00000	0.10723	0.10723	—	448.083	448.083	0.00463	0.01659	1.42076	454.563
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	1.19905	0.19843	15.1443	6.76364	0.08866	0.16888	3.46609	3.63497	0.16888	0.97207	1.14095	—	12,868.9	12,868.9	0.99217	2.07722	24.5121	13,537.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02378	0.02037	0.02481	0.31893	0.00000	0.00000	0.09364	0.09364	0.00000	0.02194	0.02194	—	88.8235	88.8235	0.00111	0.00341	0.12625	89.9933
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.24551	0.03904	3.26106	1.39499	0.01822	0.03470	0.71007	0.74477	0.03470	0.19921	0.23391	—	2,644.71	2,644.71	0.20387	0.42683	2.17349	2,779.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00434	0.00372	0.00453	0.05820	0.00000	0.00000	0.01709	0.01709	0.00000	0.00400	0.00400	—	14.7057	14.7057	0.00018	0.00056	0.02090	14.8994
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04481	0.00712	0.59514	0.25459	0.00332	0.00633	0.12959	0.13592	0.00633	0.03635	0.04269	—	437.863	437.863	0.03375	0.07067	0.35985	460.125

3.2. Site Preparation (2028)

3.2.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30571	0.30571	1.58970	16.6650	0.02984	0.06114	—	0.06114	0.06114	—	0.06114	—	3,230.70	3,230.70	0.13105	0.02621	—	3,241.78

Dust From Material Movement	—	—	—	—	—	—	2.55541	2.55541	—	1.31332	1.31332	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30571	0.30571	1.58970	16.6650	0.02984	0.06114	—	0.06114	0.06114	—	0.06114	—	3,230.70	3,230.70	0.13105	0.02621	—	3,241.78
Dust From Material Movement	—	—	—	—	—	—	2.55541	2.55541	—	1.31332	1.31332	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11475	0.11475	0.59668	6.25509	0.01120	0.02295	—	0.02295	0.02295	—	0.02295	—	1,212.62	1,212.62	0.04919	0.00984	—	1,216.78
Dust From Material Movement	—	—	—	—	—	—	0.95915	0.95915	—	0.49294	0.49294	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02094	0.02094	0.10889	1.14155	0.00204	0.00419	—	0.00419	0.00419	—	0.00419	—	200.763	200.763	0.00814	0.00163	—	201.452

Dust From Material Movement	—	—	—	—	—	—	0.17505	0.17505	—	0.08996	0.08996	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03241	0.02767	0.02568	0.46650	0.00000	0.00000	0.13071	0.13071	0.00000	0.03064	0.03064	—	125.740	125.740	0.00132	0.00066	0.36277	126.333
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03219	0.02745	0.03020	0.40069	0.00000	0.00000	0.13071	0.13071	0.00000	0.03064	0.03064	—	119.676	119.676	0.00154	0.00474	0.00939	121.137
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01216	0.01038	0.01134	0.15722	0.00000	0.00000	0.04887	0.04887	0.00000	0.01145	0.01145	—	45.5335	45.5335	0.00058	0.00178	0.05889	46.1371
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00222	0.00190	0.00207	0.02869	0.00000	0.00000	0.00892	0.00892	0.00000	0.00209	0.00209	—	7.53860	7.53860	0.00010	0.00029	0.00975	7.63852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30571	0.30571	1.58970	16.6650	0.02984	0.06114	—	0.06114	0.06114	—	0.06114	—	3,230.70	3,230.70	0.13105	0.02621	—	3,241.78
Dust From Material Movement	—	—	—	—	—	—	2.55541	2.55541	—	1.31332	1.31332	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30571	0.30571	1.58970	16.6650	0.02984	0.06114	—	0.06114	0.06114	—	0.06114	—	3,230.70	3,230.70	0.13105	0.02621	—	3,241.78
Dust From Material Movement	—	—	—	—	—	—	2.55541	2.55541	—	1.31332	1.31332	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11475	0.11475	0.59668	6.25509	0.01120	0.02295	—	0.02295	0.02295	—	0.02295	—	1,212.62	1,212.62	0.04919	0.00984	—	1,216.78

Dust From Material Movement	—	—	—	—	—	—	0.95915	0.95915	—	0.49294	0.49294	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02094	0.02094	0.10889	1.14155	0.00204	0.00419	—	0.00419	0.00419	—	0.00419	—	200.763	200.763	0.00814	0.00163	—	201.452
Dust From Material Movement	—	—	—	—	—	—	0.17505	0.17505	—	0.08996	0.08996	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03241	0.02767	0.02568	0.46650	0.00000	0.00000	0.13071	0.13071	0.00000	0.03064	0.03064	—	125.740	125.740	0.00132	0.00066	0.36277	126.333
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03219	0.02745	0.03020	0.40069	0.00000	0.00000	0.13071	0.13071	0.00000	0.03064	0.03064	—	119.676	119.676	0.00154	0.00474	0.00939	121.137
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01216	0.01038	0.01134	0.15722	0.00000	0.00000	0.04887	0.04887	0.00000	0.01145	0.01145	—	45.5335	45.5335	0.00058	0.00178	0.05889	46.1371
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00222	0.00190	0.00207	0.02869	0.00000	0.00000	0.00892	0.00892	0.00000	0.00209	0.00209	—	7.53860	7.53860	0.00010	0.00029	0.00975	7.63852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2027)

3.3.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.53906	1.50438	8.49875	70.7748	0.13172	0.30723	—	0.30723	0.30380	—	0.30380	—	14,261.8	14,261.8	0.57852	0.11570	—	14,310.7
Dust From Material Movement	—	—	—	—	—	—	4.83580	4.83580	—	1.55979	1.55979	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.53906	1.50438	8.49875	70.7748	0.13172	0.30723	—	0.30723	0.30380	—	0.30380	—	14,261.8	14,261.8	0.57852	0.11570	—	14,310.7
Dust From Material Movement	—	—	—	—	—	—	4.83580	4.83580	—	1.55979	1.55979	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25300	0.24729	1.39706	11.6342	0.02165	0.05050	—	0.05050	0.04994	—	0.04994	—	2,344.40	2,344.40	0.09510	0.01902	—	2,352.45
Dust From Material Movement	—	—	—	—	—	—	0.79493	0.79493	—	0.25640	0.25640	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04617	0.04513	0.25496	2.12324	0.00395	0.00922	—	0.00922	0.00911	—	0.00911	—	388.143	388.143	0.01574	0.00315	—	389.475
Dust From Material Movement	—	—	—	—	—	—	0.14507	0.14507	—	0.04679	0.04679	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10819	0.09279	0.09744	1.60711	0.00000	0.00000	0.42481	0.42481	0.00000	0.09957	0.09957	—	416.077	416.077	0.00430	0.01540	1.31927	422.095
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.21392	0.03540	2.70189	1.20670	0.01582	0.03013	0.61838	0.64851	0.03013	0.17343	0.20356	—	2,295.94	2,295.94	0.17701	0.37060	4.37320	2,415.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10819	0.09207	0.09959	1.38213	0.00000	0.00000	0.42481	0.42481	0.00000	0.09957	0.09957	—	395.990	395.990	0.00502	0.01540	0.03431	400.740
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.21091	0.03239	2.81413	1.21725	0.01582	0.03013	0.61838	0.64851	0.03013	0.17343	0.20356	—	2,296.80	2,296.80	0.17701	0.37060	0.11332	2,411.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01767	0.01513	0.01843	0.23692	0.00000	0.00000	0.06956	0.06956	0.00000	0.01630	0.01630	—	65.9832	65.9832	0.00082	0.00253	0.09379	66.8522
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03504	0.00557	0.46544	0.19910	0.00260	0.00495	0.10135	0.10630	0.00495	0.02843	0.03339	—	377.474	377.474	0.02910	0.06092	0.31022	396.666
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00322	0.00276	0.00336	0.04324	0.00000	0.00000	0.01270	0.01270	0.00000	0.00297	0.00297	—	10.9243	10.9243	0.00014	0.00042	0.01553	11.0681
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00640	0.00102	0.08494	0.03634	0.00047	0.00090	0.01850	0.01940	0.00090	0.00519	0.00609	—	62.4952	62.4952	0.00482	0.01009	0.05136	65.6726

3.3.3. Onsite - Mitigated

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

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

Off-Road Equipm	1.53906	1.50438	8.49875	70.7748	0.13172	0.30723	—	0.30723	0.30380	—	0.30380	—	14,261.8	14,261.8	0.57852	0.11570	—	14,310.7
Dust From Material Movement	—	—	—	—	—	—	4.83580	4.83580	—	1.55979	1.55979	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.53906	1.50438	8.49875	70.7748	0.13172	0.30723	—	0.30723	0.30380	—	0.30380	—	14,261.8	14,261.8	0.57852	0.11570	—	14,310.7
Dust From Material Movement	—	—	—	—	—	—	4.83580	4.83580	—	1.55979	1.55979	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25300	0.24729	1.39706	11.6342	0.02165	0.05050	—	0.05050	0.04994	—	0.04994	—	2,344.40	2,344.40	0.09510	0.01902	—	2,352.45
Dust From Material Movement	—	—	—	—	—	—	0.79493	0.79493	—	0.25640	0.25640	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04617	0.04513	0.25496	2.12324	0.00395	0.00922	—	0.00922	0.00911	—	0.00911	—	388.143	388.143	0.01574	0.00315	—	389.475
Dust From Material Movement	—	—	—	—	—	—	0.14507	0.14507	—	0.04679	0.04679	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10819	0.09279	0.09744	1.60711	0.00000	0.00000	0.42481	0.42481	0.00000	0.09957	0.09957	—	416.077	416.077	0.00430	0.01540	1.31927	422.095
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.21392	0.03540	2.70189	1.20670	0.01582	0.03013	0.61838	0.64851	0.03013	0.17343	0.20356	—	2,295.94	2,295.94	0.17701	0.37060	4.37320	2,415.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10819	0.09207	0.09959	1.38213	0.00000	0.00000	0.42481	0.42481	0.00000	0.09957	0.09957	—	395.990	395.990	0.00502	0.01540	0.03431	400.740
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.21091	0.03239	2.81413	1.21725	0.01582	0.03013	0.61838	0.64851	0.03013	0.17343	0.20356	—	2,296.80	2,296.80	0.17701	0.37060	0.11332	2,411.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01767	0.01513	0.01843	0.23692	0.00000	0.00000	0.06956	0.06956	0.00000	0.01630	0.01630	—	65.9832	65.9832	0.00082	0.00253	0.09379	66.8522
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03504	0.00557	0.46544	0.19910	0.00260	0.00495	0.10135	0.10630	0.00495	0.02843	0.03339	—	377.474	377.474	0.02910	0.06092	0.31022	396.666
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00322	0.00276	0.00336	0.04324	0.00000	0.00000	0.01270	0.01270	0.00000	0.00297	0.00297	—	10.9243	10.9243	0.00014	0.00042	0.01553	11.0681

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00640	0.00102	0.08494	0.03634	0.00047	0.00090	0.01850	0.01940	0.00090	0.00519	0.00609	—	62.4952	62.4952	0.00482	0.01009	0.05136	65.6726

3.4. Building Construction (2027)

3.4.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81702	0.70229	5.57579	14.1197	0.02440	0.20323	—	0.20323	0.18898	—	0.18898	—	2,505.95	2,505.95	0.10165	0.02033	—	2,514.55
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81702	0.70229	5.57579	14.1197	0.02440	0.20323	—	0.20323	0.18898	—	0.18898	—	2,505.95	2,505.95	0.10165	0.02033	—	2,514.55
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19186	0.16492	1.30938	3.31579	0.00573	0.04773	—	0.04773	0.04438	—	0.04438	—	588.480	588.480	0.02387	0.00477	—	590.500
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.03502	0.03010	0.23896	0.60513	0.00105	0.00871	—	0.00871	0.00810	—	0.00810	—	97.4296	97.4296	0.00395	0.00079	—	97.7640
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97168	0.83333	0.87516	14.4337	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,736.83	3,736.83	0.03861	0.13835	11.8485	3,790.88
Vendor	0.10565	0.02794	1.33244	0.66163	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,336.24	1,336.24	0.06794	0.18239	3.19637	1,395.49
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97168	0.82690	0.89446	12.4131	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,556.43	3,556.43	0.04504	0.13835	0.30813	3,599.09
Vendor	0.10469	0.02699	1.38871	0.67694	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,336.95	1,336.95	0.06699	0.18239	0.08277	1,393.06
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22667	0.19418	0.23650	3.03968	0.00000	0.00000	0.89249	0.89249	0.00000	0.20914	0.20914	—	846.574	846.574	0.01058	0.03249	1.20332	857.724
Vendor	0.02481	0.00656	0.32823	0.15695	0.00229	0.00229	0.08693	0.08922	0.00229	0.02402	0.02632	—	313.865	313.865	0.01573	0.04283	0.32352	327.346
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04137	0.03544	0.04316	0.55474	0.00000	0.00000	0.16288	0.16288	0.00000	0.03817	0.03817	—	140.160	140.160	0.00175	0.00538	0.19922	142.006
Vendor	0.00453	0.00120	0.05990	0.02864	0.00042	0.00042	0.01586	0.01628	0.00042	0.00438	0.00480	—	51.9639	51.9639	0.00260	0.00709	0.05356	54.1958
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81702	0.70229	5.57579	14.1197	0.02440	0.20323	—	0.20323	0.18898	—	0.18898	—	2,505.95	2,505.95	0.10165	0.02033	—	2,514.55
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81702	0.70229	5.57579	14.1197	0.02440	0.20323	—	0.20323	0.18898	—	0.18898	—	2,505.95	2,505.95	0.10165	0.02033	—	2,514.55
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19186	0.16492	1.30938	3.31579	0.00573	0.04773	—	0.04773	0.04438	—	0.04438	—	588.480	588.480	0.02387	0.00477	—	590.500
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03502	0.03010	0.23896	0.60513	0.00105	0.00871	—	0.00871	0.00810	—	0.00810	—	97.4296	97.4296	0.00395	0.00079	—	97.7640
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97168	0.83333	0.87516	14.4337	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,736.83	3,736.83	0.03861	0.13835	11.8485	3,790.88
Vendor	0.10565	0.02794	1.33244	0.66163	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,336.24	1,336.24	0.06794	0.18239	3.19637	1,395.49
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97168	0.82690	0.89446	12.4131	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,556.43	3,556.43	0.04504	0.13835	0.30813	3,599.09
Vendor	0.10469	0.02699	1.38871	0.67694	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,336.95	1,336.95	0.06699	0.18239	0.08277	1,393.06
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22667	0.19418	0.23650	3.03968	0.00000	0.00000	0.89249	0.89249	0.00000	0.20914	0.20914	—	846.574	846.574	0.01058	0.03249	1.20332	857.724
Vendor	0.02481	0.00656	0.32823	0.15695	0.00229	0.00229	0.08693	0.08922	0.00229	0.02402	0.02632	—	313.865	313.865	0.01573	0.04283	0.32352	327.346
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04137	0.03544	0.04316	0.55474	0.00000	0.00000	0.16288	0.16288	0.00000	0.03817	0.03817	—	140.160	140.160	0.00175	0.00538	0.19922	142.006
Vendor	0.00453	0.00120	0.05990	0.02864	0.00042	0.00042	0.01586	0.01628	0.00042	0.00438	0.00480	—	51.9639	51.9639	0.00260	0.00709	0.05356	54.1958
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028)

3.5.1. Onsite - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79123	0.68078	5.29745	14.1068	0.02441	0.18813	—	0.18813	0.17509	—	0.17509	—	2,506.31	2,506.31	0.10167	0.02033	—	2,514.92
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79123	0.68078	5.29745	14.1068	0.02441	0.18813	—	0.18813	0.17509	—	0.17509	—	2,506.31	2,506.31	0.10167	0.02033	—	2,514.92
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56671	0.48760	3.79426	10.1039	0.01748	0.13475	—	0.13475	0.12541	—	0.12541	—	1,795.13	1,795.13	0.07282	0.01456	—	1,801.29
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10343	0.08899	0.69245	1.84396	0.00319	0.02459	—	0.02459	0.02289	—	0.02289	—	297.204	297.204	0.01206	0.00241	—	298.224
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94594	0.80759	0.74968	13.6164	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,670.18	3,670.18	0.03861	0.01930	10.5888	3,687.49
Vendor	0.09589	0.02699	1.27790	0.64019	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,305.26	1,305.26	0.06603	0.18239	2.87534	1,364.14
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.93951	0.80116	0.88159	11.6956	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,493.18	3,493.18	0.04504	0.13835	0.27408	3,535.81
Vendor	0.09397	0.02699	1.33417	0.65455	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,305.99	1,305.99	0.06699	0.18239	0.07467	1,362.10
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67752	0.57843	0.63143	8.75712	0.00000	0.00000	2.72210	2.72210	0.00000	0.63789	0.63789	—	2,536.16	2,536.16	0.03226	0.09909	3.27995	2,569.78
Vendor	0.06799	0.02001	0.95572	0.46333	0.00699	0.00699	0.26513	0.27213	0.00699	0.07327	0.08027	—	935.107	935.107	0.04798	0.13064	0.88976	976.126
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12365	0.10556	0.11524	1.59817	0.00000	0.00000	0.49678	0.49678	0.00000	0.11642	0.11642	—	419.891	419.891	0.00534	0.01641	0.54303	425.456
Vendor	0.01241	0.00365	0.17442	0.08456	0.00128	0.00128	0.04839	0.04966	0.00128	0.01337	0.01465	—	154.818	154.818	0.00794	0.02163	0.14731	161.609
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.3. Onsite - Mitigated

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

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

Off-Road Equipm	0.79123	0.68078	5.29745	14.1068	0.02441	0.18813	—	0.18813	0.17509	—	0.17509	—	2,506.31	2,506.31	0.10167	0.02033	—	2,514.92
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79123	0.68078	5.29745	14.1068	0.02441	0.18813	—	0.18813	0.17509	—	0.17509	—	2,506.31	2,506.31	0.10167	0.02033	—	2,514.92
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56671	0.48760	3.79426	10.1039	0.01748	0.13475	—	0.13475	0.12541	—	0.12541	—	1,795.13	1,795.13	0.07282	0.01456	—	1,801.29
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10343	0.08899	0.69245	1.84396	0.00319	0.02459	—	0.02459	0.02289	—	0.02289	—	297.204	297.204	0.01206	0.00241	—	298.224
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.4. Offsite - Mitigated

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

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

Worker	0.94594	0.80759	0.74968	13.6164	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,670.18	3,670.18	0.03861	0.01930	10.5888	3,687.49
Vendor	0.09589	0.02699	1.27790	0.64019	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,305.26	1,305.26	0.06603	0.18239	2.87534	1,364.14
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.93951	0.80116	0.88159	11.6956	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,493.18	3,493.18	0.04504	0.13835	0.27408	3,535.81
Vendor	0.09397	0.02699	1.33417	0.65455	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,305.99	1,305.99	0.06699	0.18239	0.07467	1,362.10
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67752	0.57843	0.63143	8.75712	0.00000	0.00000	2.72210	2.72210	0.00000	0.63789	0.63789	—	2,536.16	2,536.16	0.03226	0.09909	3.27995	2,569.78
Vendor	0.06799	0.02001	0.95572	0.46333	0.00699	0.00699	0.26513	0.27213	0.00699	0.07327	0.08027	—	935.107	935.107	0.04798	0.13064	0.88976	976.126
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12365	0.10556	0.11524	1.59817	0.00000	0.00000	0.49678	0.49678	0.00000	0.11642	0.11642	—	419.891	419.891	0.00534	0.01641	0.54303	425.456
Vendor	0.01241	0.00365	0.17442	0.08456	0.00128	0.00128	0.04839	0.04966	0.00128	0.01337	0.01465	—	154.818	154.818	0.00794	0.02163	0.14731	161.609
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Building Construction (2029)

3.6.1. Onsite - Unmitigated

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

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

Off-Road	0.77048	0.66347	5.08103	14.0605	0.02440	0.17731	—	0.17731	0.16514	—	0.16514	—	2,505.63	2,505.63	0.10164	0.02033	—	2,514.23
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04976	0.04285	0.32813	0.90802	0.00158	0.01145	—	0.01145	0.01066	—	0.01066	—	161.812	161.812	0.00656	0.00131	—	162.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00908	0.00782	0.05988	0.16571	0.00029	0.00209	—	0.00209	0.00195	—	0.00195	—	26.7898	26.7898	0.00109	0.00022	—	26.8817
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.90733	0.76898	0.75611	10.9845	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,434.40	3,434.40	0.03861	0.13835	0.24344	3,476.84
Vendor	0.09397	0.02603	1.27962	0.63120	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,271.42	1,271.42	0.06603	0.18239	0.06658	1,327.49
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.05818	0.04924	0.04883	0.74407	0.00000	0.00000	0.24544	0.24544	0.00000	0.05751	0.05751	—	224.821	224.821	0.00249	0.00893	0.26275	227.809
Vendor	0.00613	0.00174	0.08259	0.04033	0.00063	0.00063	0.02391	0.02454	0.00063	0.00661	0.00724	—	82.0796	82.0796	0.00426	0.01178	0.07157	85.7678
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01062	0.00899	0.00891	0.13579	0.00000	0.00000	0.04479	0.04479	0.00000	0.01050	0.01050	—	37.2217	37.2217	0.00041	0.00148	0.04350	37.7163
Vendor	0.00112	0.00032	0.01507	0.00736	0.00012	0.00012	0.00436	0.00448	0.00012	0.00121	0.00132	—	13.5892	13.5892	0.00071	0.00195	0.01185	14.1998
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77048	0.66347	5.08103	14.0605	0.02440	0.17731	—	0.17731	0.16514	—	0.16514	—	2,505.63	2,505.63	0.10164	0.02033	—	2,514.23
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04976	0.04285	0.32813	0.90802	0.00158	0.01145	—	0.01145	0.01066	—	0.01066	—	161.812	161.812	0.00656	0.00131	—	162.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.00908	0.00782	0.05988	0.16571	0.00029	0.00209	—	0.00209	0.00195	—	0.00195	—	26.7898	26.7898	0.00109	0.00022	—	26.8817
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.90733	0.76898	0.75611	10.9845	0.00000	0.00000	3.81522	3.81522	0.00000	0.89428	0.89428	—	3,434.40	3,434.40	0.03861	0.13835	0.24344	3,476.84
Vendor	0.09397	0.02603	1.27962	0.63120	0.00976	0.00976	0.37138	0.38114	0.00976	0.10261	0.11237	—	1,271.42	1,271.42	0.06603	0.18239	0.06658	1,327.49
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05818	0.04924	0.04883	0.74407	0.00000	0.00000	0.24544	0.24544	0.00000	0.05751	0.05751	—	224.821	224.821	0.00249	0.00893	0.26275	227.809
Vendor	0.00613	0.00174	0.08259	0.04033	0.00063	0.00063	0.02391	0.02454	0.00063	0.00661	0.00724	—	82.0796	82.0796	0.00426	0.01178	0.07157	85.7678
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01062	0.00899	0.00891	0.13579	0.00000	0.00000	0.04479	0.04479	0.00000	0.01050	0.01050	—	37.2217	37.2217	0.00041	0.00148	0.04350	37.7163
Vendor	0.00112	0.00032	0.01507	0.00736	0.00012	0.00012	0.00436	0.00448	0.00012	0.00121	0.00132	—	13.5892	13.5892	0.00071	0.00195	0.01185	14.1998
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Paving (2028)

3.7.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68806	0.57816	5.13289	11.3828	0.02346	0.18272	—	0.18272	0.16810	—	0.16810	—	2,538.47	2,538.47	0.10297	0.02059	—	2,547.18
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68806	0.57816	5.13289	11.3828	0.02346	0.18272	—	0.18272	0.16810	—	0.16810	—	2,538.47	2,538.47	0.10297	0.02059	—	2,547.18
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27334	0.22968	2.03909	4.52193	0.00932	0.07259	—	0.07259	0.06678	—	0.06678	—	1,008.43	1,008.43	0.04091	0.00818	—	1,011.89
Paving	0.03288	0.03288	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04988	0.04192	0.37213	0.82525	0.00170	0.01325	—	0.01325	0.01219	—	0.01219	—	166.958	166.958	0.00677	0.00135	—	167.530
Paving	0.00600	0.00600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04861	0.04150	0.03853	0.69975	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	188.610	188.610	0.00198	0.00099	0.54416	189.500
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04828	0.04117	0.04530	0.60104	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	179.514	179.514	0.00231	0.00711	0.01409	181.705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01931	0.01649	0.01800	0.24961	0.00000	0.00000	0.07759	0.07759	0.00000	0.01818	0.01818	—	72.2887	72.2887	0.00092	0.00282	0.09349	73.2468
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00352	0.00301	0.00328	0.04555	0.00000	0.00000	0.01416	0.01416	0.00000	0.00332	0.00332	—	11.9682	11.9682	0.00015	0.00047	0.01548	12.1268
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68806	0.57816	5.13289	11.3828	0.02346	0.18272	—	0.18272	0.16810	—	0.16810	—	2,538.47	2,538.47	0.10297	0.02059	—	2,547.18
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68806	0.57816	5.13289	11.3828	0.02346	0.18272	—	0.18272	0.16810	—	0.16810	—	2,538.47	2,538.47	0.10297	0.02059	—	2,547.18
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27334	0.22968	2.03909	4.52193	0.00932	0.07259	—	0.07259	0.06678	—	0.06678	—	1,008.43	1,008.43	0.04091	0.00818	—	1,011.89
Paving	0.03288	0.03288	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04988	0.04192	0.37213	0.82525	0.00170	0.01325	—	0.01325	0.01219	—	0.01219	—	166.958	166.958	0.00677	0.00135	—	167.530
Paving	0.00600	0.00600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04861	0.04150	0.03853	0.69975	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	188.610	188.610	0.00198	0.00099	0.54416	189.500
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04828	0.04117	0.04530	0.60104	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	179.514	179.514	0.00231	0.00711	0.01409	181.705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01931	0.01649	0.01800	0.24961	0.00000	0.00000	0.07759	0.07759	0.00000	0.01818	0.01818	—	72.2887	72.2887	0.00092	0.00282	0.09349	73.2468
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00352	0.00301	0.00328	0.04555	0.00000	0.00000	0.01416	0.01416	0.00000	0.00332	0.00332	—	11.9682	11.9682	0.00015	0.00047	0.01548	12.1268
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Paving (2029)

3.8.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67526	0.56740	4.77442	11.4015	0.02345	0.16851	—	0.16851	0.15503	—	0.15503	—	2,537.76	2,537.76	0.10294	0.02059	—	2,546.47
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67526	0.56740	4.77442	11.4015	0.02345	0.16851	—	0.16851	0.15503	—	0.15503	—	2,537.76	2,537.76	0.10294	0.02059	—	2,546.47
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14007	0.11770	0.99039	2.36508	0.00486	0.03496	—	0.03496	0.03216	—	0.03216	—	526.424	526.424	0.02135	0.00427	—	528.231
Paving	0.01717	0.01717	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.02556	0.02148	0.18075	0.43163	0.00089	0.00638	—	0.00638	0.00587	—	0.00587	—	87.1555	87.1555	0.00354	0.00071	—	87.4546
Paving	0.00313	0.00313	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04018	0.03820	0.65808	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	185.426	185.426	0.00198	0.00099	0.48379	186.255
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04663	0.03952	0.03886	0.56449	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	176.494	176.494	0.00198	0.00711	0.01251	178.675
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00960	0.00813	0.00806	0.12282	0.00000	0.00000	0.04051	0.04051	0.00000	0.00949	0.00949	—	37.1113	37.1113	0.00041	0.00147	0.04337	37.6045
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00175	0.00148	0.00147	0.02242	0.00000	0.00000	0.00739	0.00739	0.00000	0.00173	0.00173	—	6.14420	6.14420	0.00007	0.00024	0.00718	6.22585
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67526	0.56740	4.77442	11.4015	0.02345	0.16851	—	0.16851	0.15503	—	0.15503	—	2,537.76	2,537.76	0.10294	0.02059	—	2,546.47
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67526	0.56740	4.77442	11.4015	0.02345	0.16851	—	0.16851	0.15503	—	0.15503	—	2,537.76	2,537.76	0.10294	0.02059	—	2,546.47
Paving	0.08276	0.08276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14007	0.11770	0.99039	2.36508	0.00486	0.03496	—	0.03496	0.03216	—	0.03216	—	526.424	526.424	0.02135	0.00427	—	528.231
Paving	0.01717	0.01717	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.02556	0.02148	0.18075	0.43163	0.00089	0.00638	—	0.00638	0.00587	—	0.00587	—	87.1555	87.1555	0.00354	0.00071	—	87.4546
Paving	0.00313	0.00313	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04018	0.03820	0.65808	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	185.426	185.426	0.00198	0.00099	0.48379	186.255
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04663	0.03952	0.03886	0.56449	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	176.494	176.494	0.00198	0.00711	0.01251	178.675
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00960	0.00813	0.00806	0.12282	0.00000	0.00000	0.04051	0.04051	0.00000	0.00949	0.00949	—	37.1113	37.1113	0.00041	0.00147	0.04337	37.6045
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00175	0.00148	0.00147	0.02242	0.00000	0.00000	0.00739	0.00739	0.00000	0.00173	0.00173	—	6.14420	6.14420	0.00007	0.00024	0.00718	6.22585
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Architectural Coating (2029)

3.9.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22090	0.18256	1.40504	1.53944	0.00289	0.03699	—	0.03699	0.03403	—	0.03403	—	215.100	215.100	0.00873	0.00175	—	215.839
Architectural Coatings	71.0796	71.0796	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22090	0.18256	1.40504	1.53944	0.00289	0.03699	—	0.03699	0.03403	—	0.03403	—	215.100	215.100	0.00873	0.00175	—	215.839
Architectural Coatings	71.0796	71.0796	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04176	0.03451	0.26561	0.29102	0.00055	0.00699	—	0.00699	0.00643	—	0.00643	—	40.6628	40.6628	0.00165	0.00033	—	40.8024
Architectural Coatings	13.4370	13.4370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00762	0.00630	0.04847	0.05311	0.00010	0.00128	—	0.00128	0.00117	—	0.00117	—	6.73220	6.73220	0.00027	0.00005	—	6.75530
Architectural Coatings	2.45224	2.45224	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18275	0.15637	0.14865	2.56112	0.00000	0.00000	0.76304	0.76304	0.00000	0.17886	0.17886	—	721.644	721.644	0.00772	0.00386	1.88283	724.871
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18147	0.15380	0.15122	2.19690	0.00000	0.00000	0.76304	0.76304	0.00000	0.17886	0.17886	—	686.881	686.881	0.00772	0.02767	0.04869	695.368

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03406	0.02883	0.02859	0.43562	0.00000	0.00000	0.14369	0.14369	0.00000	0.03367	0.03367	—	131.622	131.622	0.00146	0.00523	0.15383	133.372
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00622	0.00526	0.00522	0.07950	0.00000	0.00000	0.02622	0.02622	0.00000	0.00615	0.00615	—	21.7916	21.7916	0.00024	0.00087	0.02547	22.0812
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22090	0.18256	1.40504	1.53944	0.00289	0.03699	—	0.03699	0.03403	—	0.03403	—	215.100	215.100	0.00873	0.00175	—	215.839
Architectural Coatings	71.0796	71.0796	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.22090	0.18256	1.40504	1.53944	0.00289	0.03699	—	0.03699	0.03403	—	0.03403	—	215.100	215.100	0.00873	0.00175	—	215.839
Architectural Coatings	71.0796	71.0796	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04176	0.03451	0.26561	0.29102	0.00055	0.00699	—	0.00699	0.00643	—	0.00643	—	40.6628	40.6628	0.00165	0.00033	—	40.8024
Architectural Coatings	13.4370	13.4370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00762	0.00630	0.04847	0.05311	0.00010	0.00128	—	0.00128	0.00117	—	0.00117	—	6.73220	6.73220	0.00027	0.00005	—	6.75530
Architectural Coatings	2.45224	2.45224	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.4. Offsite - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18275	0.15637	0.14865	2.56112	0.00000	0.00000	0.76304	0.76304	0.00000	0.17886	0.17886	—	721.644	721.644	0.00772	0.00386	1.88283	724.871
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18147	0.15380	0.15122	2.19690	0.00000	0.00000	0.76304	0.76304	0.00000	0.17886	0.17886	—	686.881	686.881	0.00772	0.02767	0.04869	695.368
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03406	0.02883	0.02859	0.43562	0.00000	0.00000	0.14369	0.14369	0.00000	0.03367	0.03367	—	131.622	131.622	0.00146	0.00523	0.15383	133.372
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00622	0.00526	0.00522	0.07950	0.00000	0.00000	0.02622	0.02622	0.00000	0.00615	0.00615	—	21.7916	21.7916	0.00024	0.00087	0.02547	22.0812
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	7.95205	7.29004	4.52040	63.2884	0.16784	0.08658	17.3389	17.4254	0.08047	4.39719	4.47766	—	17,082.6	17,082.6	0.67585	0.56567	43.2039	17,311.3
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	7.95205	7.29004	4.52040	63.2884	0.16784	0.08658	17.3389	17.4254	0.08047	4.39719	4.47766	—	17,082.6	17,082.6	0.67585	0.56567	43.2039	17,311.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	7.92653	7.25607	4.94135	58.7630	0.16104	0.08660	17.3389	17.4255	0.08049	4.39719	4.47768	—	16,394.5	16,394.5	0.70446	0.59548	1.12019	16,590.7
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	7.92653	7.25607	4.94135	58.7630	0.16104	0.08660	17.3389	17.4255	0.08049	4.39719	4.47768	—	16,394.5	16,394.5	0.70446	0.59548	1.12019	16,590.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	1.43559	1.31343	0.91051	10.9846	0.02972	0.01580	3.15214	3.16794	0.01469	0.79943	0.81412	—	2,745.04	2,745.04	0.11584	0.09893	3.08856	2,780.50

Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	1.43559	1.31343	0.91051	10.9846	0.02972	0.01580	3.15214	3.16794	0.01469	0.79943	0.81412	—	2,745.04	2,745.04	0.11584	0.09893	3.08856	2,780.50

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	6.24105	5.72148	3.54777	49.6709	0.13173	0.06795	13.6082	13.6761	0.06316	3.45107	3.51422	—	13,407.1	13,407.1	0.53043	0.44395	33.9079	13,586.5
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	6.24105	5.72148	3.54777	49.6709	0.13173	0.06795	13.6082	13.6761	0.06316	3.45107	3.51422	—	13,407.1	13,407.1	0.53043	0.44395	33.9079	13,586.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	6.22102	5.69482	3.87815	46.1192	0.12639	0.06797	13.6082	13.6761	0.06318	3.45107	3.51424	—	12,867.0	12,867.0	0.55288	0.46735	0.87917	13,021.0

Recreational	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	6.22102	5.69482	3.87815	46.1192	0.12639	0.06797	13.6082	13.6761	0.06318	3.45107	3.51424	—	12,867.0	12,867.0	0.55288	0.46735	0.87917	13,021.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	1.12670	1.03082	0.71460	8.62110	0.02333	0.01240	2.47391	2.48631	0.01153	0.62742	0.63895	—	2,154.40	2,154.40	0.09091	0.07764	2.42401	2,182.24
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	1.12670	1.03082	0.71460	8.62110	0.02333	0.01240	2.47391	2.48631	0.01153	0.62742	0.63895	—	2,154.40	2,154.40	0.09091	0.07764	2.42401	2,182.24

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	522.053	522.053	0.02925	0.00355	—	523.840

Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	429.868	429.868	0.02408	0.00292	—	431.340
Total	—	—	—	—	—	—	—	—	—	—	—	—	951.920	951.920	0.05333	0.00646	—	955.180
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	522.053	522.053	0.02925	0.00355	—	523.840
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	429.868	429.868	0.02408	0.00292	—	431.340
Total	—	—	—	—	—	—	—	—	—	—	—	—	951.920	951.920	0.05333	0.00646	—	955.180
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	86.4318	86.4318	0.00484	0.00059	—	86.7278
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	71.1695	71.1695	0.00399	0.00048	—	71.4132
Total	—	—	—	—	—	—	—	—	—	—	—	—	157.601	157.601	0.00883	0.00107	—	158.141

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	522.053	522.053	0.02925	0.00355	—	523.840
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	429.868	429.868	0.02408	0.00292	—	431.340
Total	—	—	—	—	—	—	—	—	—	—	—	—	951.920	951.920	0.05333	0.00646	—	955.180
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	522.053	522.053	0.02925	0.00355	—	523.840
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	429.868	429.868	0.02408	0.00292	—	431.340
Total	—	—	—	—	—	—	—	—	—	—	—	—	951.920	951.920	0.05333	0.00646	—	955.180

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	86.4318	86.4318	0.00484	0.00059	—	86.7278
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	71.1695	71.1695	0.00399	0.00048	—	71.4132
Total	—	—	—	—	—	—	—	—	—	—	—	—	157.601	157.601	0.00883	0.00107	—	158.141

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	152.111	152.111	0.01346	0.00029	—	152.533
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	152.111	152.111	0.01346	0.00029	—	152.533

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.08470	0.04235	0.72381	0.30801	0.00462	0.05852	—	0.05852	0.05852	—	0.05852	—	918.757	918.757	0.08131	0.00173	—	921.305
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	152.111	152.111	0.01346	0.00029	—	152.533

Recreati Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.01546	0.00773	0.13210	0.05621	0.00084	0.01068	—	0.01068	0.01068	—	0.01068	—	152.111	152.111	0.01346	0.00029	—	152.533

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.78618	0.39309	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Consumer Products	16.4964	16.4964	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.34370	1.34370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.11062	1.99822	0.21620	23.0676	0.00100	0.01064	—	0.01064	0.00804	—	0.00804	—	61.5551	61.5551	0.00257	0.00051	—	61.7717
Total	20.7368	20.2314	6.93444	25.9264	0.04388	0.55382	—	0.55382	0.55122	—	0.55122	0.00000	8,589.19	8,589.19	0.16315	0.01657	—	8,598.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.78618	0.39309	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43

Consumer Product	16.4964	16.4964	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.34370	1.34370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18.6262	18.2331	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00983	0.00491	0.08398	0.03574	0.00054	0.00679	—	0.00679	0.00679	—	0.00679	0.00000	96.7018	96.7018	0.00182	0.00018	—	96.8016
Consumer Products	3.01058	3.01058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.24522	0.24522	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26383	0.24978	0.02703	2.88345	0.00012	0.00133	—	0.00133	0.00101	—	0.00101	—	6.98024	6.98024	0.00029	0.00006	—	7.00480
Total	3.52946	3.51050	0.11100	2.91918	0.00066	0.00812	—	0.00812	0.00779	—	0.00779	0.00000	103.682	103.682	0.00211	0.00024	—	103.806

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.78618	0.39309	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Consumer Products	16.4964	16.4964	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	1.34370	1.34370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.11062	1.99822	0.21620	23.0676	0.00100	0.01064	—	0.01064	0.00804	—	0.00804	—	61.5551	61.5551	0.00257	0.00051	—	61.7717
Total	20.7368	20.2314	6.93444	25.9264	0.04388	0.55382	—	0.55382	0.55122	—	0.55122	0.00000	8,589.19	8,589.19	0.16315	0.01657	—	8,598.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.78618	0.39309	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Consumer Products	16.4964	16.4964	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.34370	1.34370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18.6262	18.2331	6.71824	2.85882	0.04288	0.54318	—	0.54318	0.54318	—	0.54318	0.00000	8,527.63	8,527.63	0.16057	0.01606	—	8,536.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00983	0.00491	0.08398	0.03574	0.00054	0.00679	—	0.00679	0.00679	—	0.00679	0.00000	96.7018	96.7018	0.00182	0.00018	—	96.8016
Consumer Products	3.01058	3.01058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.24522	0.24522	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26383	0.24978	0.02703	2.88345	0.00012	0.00133	—	0.00133	0.00101	—	0.00101	—	6.98024	6.98024	0.00029	0.00006	—	7.00480
Total	3.52946	3.51050	0.11100	2.91918	0.00066	0.00812	—	0.00812	0.00779	—	0.00779	0.00000	103.682	103.682	0.00211	0.00024	—	103.806

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	29.1227	185.783	214.906	2.99661	0.07221	—	311.340
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.18586	1.06545	1.25132	0.01912	0.00046	—	1.86637
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	29.1227	185.783	214.906	2.99661	0.07221	—	311.340
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.18586	1.06545	1.25132	0.01912	0.00046	—	1.86637
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	4.82160	30.7585	35.5801	0.49612	0.01196	—	51.5459
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03077	0.17640	0.20717	0.00317	0.00008	—	0.30900
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	4.85237	30.9349	35.7872	0.49929	0.01203	—	51.8549

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	29.1227	185.783	214.906	2.99661	0.07221	—	311.340
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.18586	1.06545	1.25132	0.01912	0.00046	—	1.86637
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	29.1227	185.783	214.906	2.99661	0.07221	—	311.340
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.18586	1.06545	1.25132	0.01912	0.00046	—	1.86637
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	29.3086	186.848	216.157	3.01573	0.07267	—	313.207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	4.82160	30.7585	35.5801	0.49612	0.01196	—	51.5459
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03077	0.17640	0.20717	0.00317	0.00008	—	0.30900
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	4.85237	30.9349	35.7872	0.49929	0.01203	—	51.8549

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	161.417	0.00000	161.417	16.1331	0.00000	—	564.744
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	5.03800	0.00000	5.03800	0.50353	0.00000	—	17.6262
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	161.417	0.00000	161.417	16.1331	0.00000	—	564.744
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	5.03800	0.00000	5.03800	0.50353	0.00000	—	17.6262
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	26.7245	0.00000	26.7245	2.67101	0.00000	—	93.4998
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.83410	0.00000	0.83410	0.08337	0.00000	—	2.91823
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	27.5586	0.00000	27.5586	2.75438	0.00000	—	96.4181

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	161.417	0.00000	161.417	16.1331	0.00000	—	564.744
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	5.03800	0.00000	5.03800	0.50353	0.00000	—	17.6262
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T High Rise	—	—	—	—	—	—	—	—	—	—	—	161.417	0.00000	161.417	16.1331	0.00000	—	564.744
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	5.03800	0.00000	5.03800	0.50353	0.00000	—	17.6262
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	166.455	0.00000	166.455	16.6366	0.00000	—	582.370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	26.7245	0.00000	26.7245	2.67101	0.00000	—	93.4998
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.83410	0.00000	0.83410	0.08337	0.00000	—	2.91823
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	27.5586	0.00000	27.5586	2.75438	0.00000	—	96.4181

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

Condo/T High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.50800	5.50800
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00327	0.00327
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.50800	5.50800
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00327	0.00327
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91191	0.91191
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00054	0.00054
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91245	0.91245

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.50800	5.50800
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00327	0.00327
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.50800	5.50800
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00327	0.00327
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.51127	5.51127
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91191	0.91191

Recreational	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00054	0.00054
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91245	0.91245

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/4/2027	9/16/2027	5.00000	75.0000	—
Site Preparation	Site Preparation	1/3/2028	7/11/2028	5.00000	137.000	—

Grading	Grading	9/22/2027	12/14/2027	5.00000	60.0000	—
Building Construction	Building Construction	9/3/2027	2/2/2029	5.00000	370.000	—
Paving	Paving	6/12/2028	4/16/2029	5.00000	221.000	—
Architectural Coating	Architectural Coating	3/4/2029	6/7/2029	5.00000	69.0000	—

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	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Tier 4 Final	5.00000	8.00000	380.000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Skid Steer Loaders	Diesel	Tier 4 Final	4.00000	8.00000	73.0000	0.37000
Demolition	Forklifts	Diesel	Tier 4 Final	1.000000	4.00000	40.0000	0.20000
Demolition	Off-Highway Trucks	Diesel	Tier 4 Final	1.000000	8.00000	463.000	0.38000
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	249.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.000000	8.00000	107.000	0.37000
Site Preparation	Excavators	Diesel	Tier 4 Final	2.00000	8.00000	273.000	0.38000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Tier 4 Final	2.00000	8.00000	191.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	405.000	0.40000
Grading	Scrapers	Diesel	Tier 4 Final	4.00000	8.00000	407.000	0.48000
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00000	8.00000	311.000	0.37000
Grading	Crawler Tractors	Diesel	Tier 4 Final	1.000000	8.00000	238.000	0.43000
Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.000000	8.00000	175.000	0.38000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000

Building Construction	Forklifts	Diesel	Tier 4 Final	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	8.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Building Construction	Pumps	Diesel	Tier 4 Final	1.000000	8.00000	11.0000	0.74000
Paving	Pavers	Diesel	Average	1.000000	8.00000	225.000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	3.00000	8.00000	100.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000
Architectural Coating	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000

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	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Tier 4 Final	5.00000	8.00000	380.000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Skid Steer Loaders	Diesel	Tier 4 Final	4.00000	8.00000	73.0000	0.37000
Demolition	Forklifts	Diesel	Tier 4 Final	1.000000	4.00000	40.0000	0.20000
Demolition	Off-Highway Trucks	Diesel	Tier 4 Final	1.000000	8.00000	463.000	0.38000
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	249.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.000000	8.00000	107.000	0.37000
Site Preparation	Excavators	Diesel	Tier 4 Final	2.00000	8.00000	273.000	0.38000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Tier 4 Final	2.00000	8.00000	191.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	405.000	0.40000
Grading	Scrapers	Diesel	Tier 4 Final	4.00000	8.00000	407.000	0.48000

Grading	Tractors/Loaders/Back	Diesel	Tier 4 Final	2.00000	8.00000	311.000	0.37000
Grading	Crawler Tractors	Diesel	Tier 4 Final	1.000000	8.00000	238.000	0.43000
Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.000000	8.00000	175.000	0.38000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	8.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Building Construction	Pumps	Diesel	Tier 4 Final	1.000000	8.00000	11.0000	0.74000
Paving	Pavers	Diesel	Average	1.000000	8.00000	225.000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	3.00000	8.00000	100.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000
Architectural Coating	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	35.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2000	HHDT,MHDT
Demolition	Hauling	191.507	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	10.00000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	32.5000	18.5000	LDA,LDT1,LDT2

Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	34.1667	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	291.886	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	43.4061	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	58.3772	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	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	Worker	35.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2000	HHDT,MHDT
Demolition	Hauling	191.507	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	10.00000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	32.5000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT

Grading	Hauling	34.1667	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	291.886	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	43.4061	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	58.3772	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

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	1,557,344	519,115	1,021.50	340.500	18,246.2

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	57,449.0	0.00000
Site Preparation	0.00000	0.00000	68.5000	0.00000	0.00000
Grading	16,394.0	0.00000	360.000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	6.98124

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Condo/Townhouse High Rise	—	0%
Paving	Recreational Swimming Pool	0.00000	0%
Paving	Parking Lot	6.98124	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	588.983	0.03300	0.00400
2028	0.00000	588.983	0.03300	0.00400
2029	0.00000	588.983	0.03300	0.00400

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
Condo/Townhouse High Rise	2,661.00	2,661.00	2,661.00	971,265	24,568.2	24,568.2	24,568.2	8,967,386
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Condo/Townhouse High Rise	2,088.45	2,088.45	2,088.45	762,283	19,282.0	19,282.0	19,282.0	7,037,920
Recreational Swimming Pool	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Condo/Townhouse High Rise	Wood Fireplaces	0	0
Condo/Townhouse High Rise	Gas Fireplaces	405	405
Condo/Townhouse High Rise	Propane Fireplaces	0	0
Condo/Townhouse High Rise	Electric Fireplaces	0	0
Condo/Townhouse High Rise	No Fireplaces	0	0
Condo/Townhouse High Rise	Conventional Wood Stoves	0	0
Condo/Townhouse High Rise	Catalytic Wood Stoves	0	0

Condo/Townhouse High Rise	Non-Catalytic Wood Stoves	0	0
Condo/Townhouse High Rise	Pellet Wood Stoves	0	0
Recreational Swimming Pool	Wood Fireplaces	0	0
Recreational Swimming Pool	Gas Fireplaces	0	0
Recreational Swimming Pool	Propane Fireplaces	0	0
Recreational Swimming Pool	Electric Fireplaces	0	0
Recreational Swimming Pool	No Fireplaces	0	0
Recreational Swimming Pool	Conventional Wood Stoves	0	0
Recreational Swimming Pool	Catalytic Wood Stoves	0	0
Recreational Swimming Pool	Non-Catalytic Wood Stoves	0	0
Recreational Swimming Pool	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
1,557,344	519,115	1,021.50	340.500	18,246.2

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
Condo/Townhouse High Rise	323,522	588.983	0.0330	0.0040	2,866,767
Recreational Swimming Pool	0.00000	588.983	0.0330	0.0040	0.00000
Parking Lot	266,394	588.983	0.0330	0.0040	0.00000

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)
Condo/Townhouse High Rise	323,522	588.983	0.0330	0.0040	2,866,767
Recreational Swimming Pool	0.00000	588.983	0.0330	0.0040	0.00000
Parking Lot	266,394	588.983	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Condo/Townhouse High Rise	15,197,888	2,200,000
Recreational Swimming Pool	96,994.8	0.00000
Parking Lot	0.00000	0.00000

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse High Rise	15,197,888	2,200,000
Recreational Swimming Pool	96,994.8	0.00000
Parking Lot	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse High Rise	299.509	0.00000
Recreational Swimming Pool	9.34800	0.00000
Parking Lot	0.00000	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse High Rise	299.509	0.00000
Recreational Swimming Pool	9.34800	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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)

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	The proposed project consists of 405 single-family attached residential dwelling units on an approximately 22.5-acre site. The project will include an onsite recreational swimming pool and associated recreational building.
Construction: Construction Phases	Demolition, Site Preparation, Grading, Paving, and Architectural Coating phases are adjusted to reflect the expected project construction timeline. During Architectural Coating, the project will coat a maximum of 30,000 SF of surface area per day. Building Construction phase utilizes CalEEMod defaults.
Construction: Off-Road Equipment	The construction equipment list has been updated based on the project's expected construction equipment and activity.
Operations: Vehicle Data	Trip generation rates are adjusted based on the Polaris Place Residential Project Revised Traffic Impact Study Scoping Agreement (May 4, 2026), prepared by RK.
Operations: Fleet Mix	Fleet mix has been adjusted to reflect a total of 2% heavy trucks (GVWR > 10,000 lbs.).
Operations: Hearths	Per SCAQMD Rule 445, no wood-burning devices shall be allowed.
Operations: Energy Use	Residential electricity demand has been adjusted to account for electricity generated by the proposed onsite solar panels.
Operations: Water and Waste Water	Outdoor water use is adjusted based on project-specific data.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	6.32813	15.4600
Building Area	sq. ft	388,800	769,059
Landscape Area	sq. ft	—	190,000
Lot Area	acre	0.03765	0.06000

Building Area	sq. ft	1,640.00	681.000
Landscape Area	sq. ft	—	0.00000
Recreational Building Area	sq. ft	—	681.000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	Start Date	6/1/2027	6/4/2027
Demolition	Demolition	End Date	6/29/2027	9/16/2027
Demolition	Demolition	Work Days per Phase	20.0000	75.0000
Site Preparation	Site Preparation	Start Date	6/30/2027	1/3/2028
Site Preparation	Site Preparation	End Date	7/14/2027	7/11/2028
Site Preparation	Site Preparation	Work Days per Phase	10.00000	137.000
Grading	Grading	Start Date	7/15/2027	9/22/2027
Grading	Grading	End Date	9/2/2027	12/14/2027
Grading	Grading	Work Days per Phase	35.0000	60.0000
Paving	Paving	Start Date	2/3/2029	6/12/2028
Paving	Paving	End Date	3/3/2029	4/16/2029
Paving	Paving	Work Days per Phase	20.0000	221.000
Architectural Coating	Architectural Coating	End Date	4/1/2029	6/7/2029
Architectural Coating	Architectural Coating	Work Days per Phase	20.0000	69.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Demolition	Excavators	Engine Tier	Average	Tier 4 Final
Demolition	Excavators	Number per Day	3.00000	5.00000
Demolition	Excavators	Horsepower	36.0000	380.000

Site Preparation	Rubber Tired Dozers	Engine Tier	Average	Tier 4 Final
Site Preparation	Rubber Tired Dozers	Number per Day	3.00000	1.000000
Site Preparation	Rubber Tired Dozers	Horsepower	367.000	249.000
Site Preparation	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 4 Final
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	4.00000	1.000000
Site Preparation	Tractors/Loaders/Backhoes	Horsepower	84.0000	107.000
Grading	Graders	Engine Tier	Average	Tier 4 Final
Grading	Graders	Number per Day	1.000000	2.00000
Grading	Graders	Horsepower	148.000	191.000
Grading	Rubber Tired Dozers	Engine Tier	Average	Tier 4 Final
Grading	Rubber Tired Dozers	Horsepower	367.000	405.000
Grading	Scrapers	Engine Tier	Average	Tier 4 Final
Grading	Scrapers	Number per Day	2.00000	4.00000
Grading	Scrapers	Horsepower	423.000	407.000
Grading	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 4 Final
Grading	Tractors/Loaders/Backhoes	Horsepower	84.0000	311.000
Building Construction	Forklifts	Engine Tier	Average	Tier 4 Final
Building Construction	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 4 Final
Building Construction	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Paving	Pavers	Number per Day	2.00000	1.000000
Paving	Pavers	Horsepower	81.0000	225.000
Paving	Rollers	Number per Day	2.00000	3.00000
Paving	Rollers	Horsepower	36.0000	100.0000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	Weekday Trip Rate	size/day	5.44000	6.57037
Condo/Townhouse High Rise	Saturday Trip Rate	size/day	4.91000	6.57037
Condo/Townhouse High Rise	Sunday Trip Rate	size/day	4.09000	6.57037
Recreational Swimming Pool	Weekday Trip Rate	size/day	28.8200	0.00000
Recreational Swimming Pool	Saturday Trip Rate	size/day	9.10000	0.00000
Recreational Swimming Pool	Sunday Trip Rate	size/day	13.6000	0.00000

8.5.1.2. Fleet Mix

Land Use	Season	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	A	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Condo/Townhouse High Rise	A	Passenger Cars	%	49%	50%
Condo/Townhouse High Rise	A	Light-Duty Trucks 1	%	4%	4%
Condo/Townhouse High Rise	A	Light-Duty Trucks 2	%	24%	24%
Condo/Townhouse High Rise	A	Light Heavy-Duty Trucks 1	%	3%	3%
Condo/Townhouse High Rise	A	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Condo/Townhouse High Rise	A	Motorcycles	%	2%	2%
Condo/Townhouse High Rise	A	Medium-Duty Trucks	%	15%	15%
Condo/Townhouse High Rise	A	Motor Homes	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	A	Medium-Heavy-Duty Trucks	%	2%	1%
Condo/Townhouse High Rise	A	Other Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	A	School Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	A	Urban Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	S	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Condo/Townhouse High Rise	S	Passenger Cars	%	49%	50%
Condo/Townhouse High Rise	S	Light-Duty Trucks 1	%	4%	4%
Condo/Townhouse High Rise	S	Light-Duty Trucks 2	%	24%	24%
Condo/Townhouse High Rise	S	Light Heavy-Duty Trucks 1	%	3%	3%

Condo/Townhouse High Rise	S	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Condo/Townhouse High Rise	S	Motorcycles	%	2%	2%
Condo/Townhouse High Rise	S	Medium-Duty Trucks	%	15%	15%
Condo/Townhouse High Rise	S	Motor Homes	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	S	Medium-Heavy-Duty Trucks	%	2%	1%
Condo/Townhouse High Rise	S	Other Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	S	School Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	S	Urban Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	W	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Condo/Townhouse High Rise	W	Passenger Cars	%	49%	50%
Condo/Townhouse High Rise	W	Light-Duty Trucks 1	%	4%	4%
Condo/Townhouse High Rise	W	Light-Duty Trucks 2	%	24%	24%
Condo/Townhouse High Rise	W	Light Heavy-Duty Trucks 1	%	3%	3%
Condo/Townhouse High Rise	W	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Condo/Townhouse High Rise	W	Motorcycles	%	2%	2%
Condo/Townhouse High Rise	W	Medium-Duty Trucks	%	15%	15%
Condo/Townhouse High Rise	W	Motor Homes	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	W	Medium-Heavy-Duty Trucks	%	2%	1%
Condo/Townhouse High Rise	W	Other Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	W	School Buses	%	< 0.5%	< 0.5%
Condo/Townhouse High Rise	W	Urban Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	A	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Recreational Swimming Pool	A	Passenger Cars	%	49%	50%
Recreational Swimming Pool	A	Light-Duty Trucks 1	%	4%	4%
Recreational Swimming Pool	A	Light-Duty Trucks 2	%	24%	24%
Recreational Swimming Pool	A	Light Heavy-Duty Trucks 1	%	3%	3%
Recreational Swimming Pool	A	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Recreational Swimming Pool	A	Motorcycles	%	2%	2%

Recreational Swimming Pool	A	Medium-Duty Trucks	%	15%	15%
Recreational Swimming Pool	A	Motor Homes	%	< 0.5%	< 0.5%
Recreational Swimming Pool	A	Medium-Heavy-Duty Trucks	%	2%	1%
Recreational Swimming Pool	A	Other Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	A	School Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	A	Urban Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	S	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Recreational Swimming Pool	S	Passenger Cars	%	49%	50%
Recreational Swimming Pool	S	Light-Duty Trucks 1	%	4%	4%
Recreational Swimming Pool	S	Light-Duty Trucks 2	%	24%	24%
Recreational Swimming Pool	S	Light Heavy-Duty Trucks 1	%	3%	3%
Recreational Swimming Pool	S	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Recreational Swimming Pool	S	Motorcycles	%	2%	2%
Recreational Swimming Pool	S	Medium-Duty Trucks	%	15%	15%
Recreational Swimming Pool	S	Motor Homes	%	< 0.5%	< 0.5%
Recreational Swimming Pool	S	Medium-Heavy-Duty Trucks	%	2%	1%
Recreational Swimming Pool	S	Other Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	S	School Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	S	Urban Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	W	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Recreational Swimming Pool	W	Passenger Cars	%	49%	50%
Recreational Swimming Pool	W	Light-Duty Trucks 1	%	4%	4%
Recreational Swimming Pool	W	Light-Duty Trucks 2	%	24%	24%
Recreational Swimming Pool	W	Light Heavy-Duty Trucks 1	%	3%	3%
Recreational Swimming Pool	W	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Recreational Swimming Pool	W	Motorcycles	%	2%	2%
Recreational Swimming Pool	W	Medium-Duty Trucks	%	15%	15%
Recreational Swimming Pool	W	Motor Homes	%	< 0.5%	< 0.5%

Recreational Swimming Pool	W	Medium-Heavy-Duty Trucks	%	2%	1%
Recreational Swimming Pool	W	Other Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	W	School Buses	%	< 0.5%	< 0.5%
Recreational Swimming Pool	W	Urban Buses	%	< 0.5%	< 0.5%
Parking Lot	A	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Parking Lot	A	Passenger Cars	%	49%	50%
Parking Lot	A	Light-Duty Trucks 1	%	4%	4%
Parking Lot	A	Light-Duty Trucks 2	%	24%	24%
Parking Lot	A	Light Heavy-Duty Trucks 1	%	3%	3%
Parking Lot	A	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Parking Lot	A	Motorcycles	%	2%	2%
Parking Lot	A	Medium-Duty Trucks	%	15%	15%
Parking Lot	A	Motor Homes	%	< 0.5%	< 0.5%
Parking Lot	A	Medium-Heavy-Duty Trucks	%	2%	1%
Parking Lot	A	Other Buses	%	< 0.5%	< 0.5%
Parking Lot	A	School Buses	%	< 0.5%	< 0.5%
Parking Lot	A	Urban Buses	%	< 0.5%	< 0.5%
Parking Lot	S	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Parking Lot	S	Passenger Cars	%	49%	50%
Parking Lot	S	Light-Duty Trucks 1	%	4%	4%
Parking Lot	S	Light-Duty Trucks 2	%	24%	24%
Parking Lot	S	Light Heavy-Duty Trucks 1	%	3%	3%
Parking Lot	S	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Parking Lot	S	Motorcycles	%	2%	2%
Parking Lot	S	Medium-Duty Trucks	%	15%	15%
Parking Lot	S	Motor Homes	%	< 0.5%	< 0.5%
Parking Lot	S	Medium-Heavy-Duty Trucks	%	2%	1%
Parking Lot	S	Other Buses	%	< 0.5%	< 0.5%

Parking Lot	S	School Buses	%	< 0.5%	< 0.5%
Parking Lot	S	Urban Buses	%	< 0.5%	< 0.5%
Parking Lot	W	Heavy-Heavy-Duty Trucks	%	1%	< 0.5%
Parking Lot	W	Passenger Cars	%	49%	50%
Parking Lot	W	Light-Duty Trucks 1	%	4%	4%
Parking Lot	W	Light-Duty Trucks 2	%	24%	24%
Parking Lot	W	Light Heavy-Duty Trucks 1	%	3%	3%
Parking Lot	W	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Parking Lot	W	Motorcycles	%	2%	2%
Parking Lot	W	Medium-Duty Trucks	%	15%	15%
Parking Lot	W	Motor Homes	%	< 0.5%	< 0.5%
Parking Lot	W	Medium-Heavy-Duty Trucks	%	2%	1%
Parking Lot	W	Other Buses	%	< 0.5%	< 0.5%
Parking Lot	W	School Buses	%	< 0.5%	< 0.5%
Parking Lot	W	Urban Buses	%	< 0.5%	< 0.5%

8.5.2. Area Sources

8.5.2.1. Hearths

Land Use	Model Parameter	Default Value	New Value
Condo/Townhouse High Rise	Wood Fireplaces	20	0
Condo/Townhouse High Rise	Gas Fireplaces	344	405
Condo/Townhouse High Rise	No Fireplaces	41	0
Condo/Townhouse High Rise	Catalytic Wood Stoves	20	0
Condo/Townhouse High Rise	Non-Catalytic Wood Stoves	20	0

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value

Condo/Townhouse High Rise	Electricity	kWh/yr	1,373,302	323,522
Condo/Townhouse High Rise	Electricity (Subject to Title 24)	kWh/yr	363,405	85,611.0
Condo/Townhouse High Rise	Electricity (Not Subject to Title 24)	kWh/yr	1,009,897	237,911

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	Outdoor Water	gal/year	3,009,686	2,200,000

Appendix B
EMFAC2025 Vehicle Fuel Consumption Data

Source: EMFAC2025 (v2.1.1) Emissions Inventory
Region Type: Air District
Region: South Coast AQMD
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for Combustion VMT and Electric VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Gasoline and Diesel Fuel Consumption, 1000 diesel equivalent gallons/day for Natural Gas Fuel Consumption (1 dge = 139.3 standard cubic feet (scf) of compressed natural gas (CNG)), kWh/day for Energy Consumption, kg/day for Hydrogen Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel Consumption	Fuel Split (Gas:Diesel)	MPG, by Fuel Type	MPG, Average
South Coast AQMD	2028	HHDT	Aggregate	Aggregate	Gasoline	118.9643095	4880.554866	1.245515801	0.00054413	3.91850097	6.52673593
South Coast AQMD	2028	HHDT	Aggregate	Aggregate	Diesel	106003.6085	14934805.52	2287.752572	0.99945587	6.52815593	
South Coast AQMD	2028	LDA	Aggregate	Aggregate	Gasoline	4725580.947	142987203.3	5272.297961	0.99902831	27.1204709	27.1294256
South Coast AQMD	2028	LDA	Aggregate	Aggregate	Diesel	8024.857916	186331.9845	5.128014405	0.00097169	36.3360883	
South Coast AQMD	2028	LDT1	Aggregate	Aggregate	Gasoline	441245.2091	13000476.41	578.5032365	0.99988693	22.4726079	22.4726157
South Coast AQMD	2028	LDT1	Aggregate	Aggregate	Diesel	67.20351163	1474.624918	0.065419163	0.00011307	22.5411767	
South Coast AQMD	2028	LDT2	Aggregate	Aggregate	Gasoline	2559014.441	88191913.2	3887.257114	0.9986489	22.6874402	22.6966697
South Coast AQMD	2028	LDT2	Aggregate	Aggregate	Diesel	4635.042057	155243.5563	5.259191847	0.0013511	29.5185193	
South Coast AQMD	2028	LHDT1	Aggregate	Aggregate	Gasoline	192550.6596	6355642.842	438.7252147	0.74352152	14.486614	16.186904
South Coast AQMD	2028	LHDT1	Aggregate	Aggregate	Diesel	93126.56289	3195665.044	151.3386971	0.25647848	21.1159809	
South Coast AQMD	2028	LHDT2	Aggregate	Aggregate	Gasoline	40525.90903	1497022.612	110.8755128	0.35102896	13.5018326	16.9138354
South Coast AQMD	2028	LHDT2	Aggregate	Aggregate	Diesel	88321.08709	3845357.552	204.9830754	0.64897104	18.7593905	
South Coast AQMD	2028	MCY	Aggregate	Aggregate	Gasoline	260963.1906	1519315.663	38.65920527	1	39.3002301	39.3002301
South Coast AQMD	2028	MDV	Aggregate	Aggregate	Gasoline	1610757.252	54764630.37	2961.83541	0.97278076	18.4900991	18.6523398
South Coast AQMD	2028	MDV	Aggregate	Aggregate	Diesel	50996.60792	2026337.115	82.87470308	0.02721924	24.4506109	
South Coast AQMD	2028	MH	Aggregate	Aggregate	Gasoline	33201.52464	298069.6646	61.38658766	0.83436571	4.85561547	5.72008337
South Coast AQMD	2028	MH	Aggregate	Aggregate	Diesel	13699.92204	122772.6535	12.18617181	0.16563429	10.0747516	
South Coast AQMD	2028	MHDT	Aggregate	Aggregate	Gasoline	33005.78612	1506162.883	274.6955041	0.36438606	5.48302706	7.7479328
South Coast AQMD	2028	MHDT	Aggregate	Aggregate	Diesel	120027.3496	4334681.52	479.1629191	0.63561394	9.04636262	
South Coast AQMD	2028	OBUS	Aggregate	Aggregate	Gasoline	4865.511806	133935.0743	26.18971409	0.56059649	5.11403346	6.18184553
South Coast AQMD	2028	OBUS	Aggregate	Aggregate	Diesel	2764.425488	154865.817	20.52787045	0.43940351	7.54417354	
South Coast AQMD	2028	SBUS	Aggregate	Aggregate	Gasoline	2856.106133	109154.5227	11.5607372	0.64832899	9.44183064	8.71852125
South Coast AQMD	2028	SBUS	Aggregate	Aggregate	Diesel	2394.831784	46310.57876	6.270853389	0.35167101	7.38505206	
South Coast AQMD	2028	UBUS	Aggregate	Aggregate	Gasoline	823.8056211	51939.99624	10.16109456	0.98564837	5.11165366	5.12564195
South Coast AQMD	2028	UBUS	Aggregate	Aggregate	Diesel	11.27523659	900.4833387	0.147951614	0.01435163	6.08633671	