Appendix A Air Quality and Greenhouse Gas Appendix

Appendices

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Air Quality and Greenhouse Gas Appendix

Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SAN DIEGO AIR BASIN

The San Diego Air Basin (SDAB) includes the entire County of San Diego. Emissions sources within the SDAB are primarily in the western region and dispersion of air pollutants is highly affected by the region's climate and geography. The climate in the project area is dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean near Hawaii. This high-pressure center creates cool summers, mild winters, and infrequent rainfall, and drives the cool, daytime breezes, maintaining a comfortable level of humidity and ample sunshine.

Inversions

The influence of this semi-permanent high-pressure system results in strong high-altitude temperature inversions associated with warm descending air. The subsidence inversions within the SDAB generally occur during the warmer months (May through October) as descending air from the Pacific high-pressure cell comes into contact with cool marine air. Within the SDAB, the inversion layer is approximately 2,000 feet (610 meters) above mean sea level (msl) between May and October. During the winter months (November through April), the temperature inversion rises to approximately 3,000 feet (914 meters) above msl. Inversion layers are important elements of local air quality because they inhibit the dispersion of pollutants, resulting in a temporary degradation of air quality. On days without inversions or on days of winds averaging over 15 mph, smog potential is greatly reduced in the SDAB.

Temperature and Precipitation

The annual average temperature varies little throughout the 4,225 square-mile basin. The overall climate is Mediterranean, with average temperatures reaching 92˚F in the summer and 38˚F in the winter. High temperatures are often accompanied by very low relative humidity (often less than 20 percent). The lowest average temperature is reported at 44°F in December and the highest average temperature is 84.7°F in August (USA.Com 2024). In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. The total average annual precipitation in Chula Vista is 12.28 inches (USA.Com 2024).

Wind

Wind patterns across the south coastal region are characterized by westerly onshore winds during the day and occasional easterly breezes at night as a result of cold air drainage. Summers are cool and winters are warm, with dry easterly winds bringing in warmer temperatures in the fall. Strong winds and gales associated with Pacific, or tropical storms, are infrequent due to the latitude (NOAA 2024).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SDAB and is subject to the rules and regulations imposed by the San Diego Air Pollution Control District (SDAPCD). However, SDAPCD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, these pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4,6]	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2024a.
Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
6 On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m^3 to 9 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary), secondary annual $PM_{2.5}$ standard, and PM_{10} standards (primary and secondary) were retained.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- CARB Advanced Clean Fleets (ACF)
- CARB Advanced Clean Trucks (ACT)
- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; US EPA 2024a). The SDAB is designated under the California and National AAQS as being in attainment of CO criteria levels (SDAPCD 2024a).

Nitrogen Oxides (NO_x) are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between breathing elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (South Coast AQMD 2005; US EPA 2024a). The SDAB is designated as an attainment area for NO_2 under both the California and National AAQS (SDAPCD 2024a).

Ozone (O_3) is commonly referred to as "smog;" it is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; US EPA 2024a). The SDAB is designated as nonattainment under the California AAQS (8-hour) and National AAQS (1-hour and 8-hour) (SDAPCD 2024a).

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 (South Coast AQMD 2005; US EPA 2024a). When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is

both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. The SDAB is designated as attainment under the California and National AAQS (SDAPCD 2024a).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (South Coast AQMD 2005).

The US Environmental Protection Agency's (US EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (South Coast AQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤ 0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2022). However, the US EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (South Coast AQMD 2005; US EPA 2024a). The SDAB is designated under the California AAQS as a nonattainment area for PM_{10} and $PM_{2.5}$ (SDAPCD 2024a).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

[2] Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

[3] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

standards established for VOCs. However, they contribute to the formation of ozone (O_3), and therefore are evaluated.

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; US EPA 2024a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the US EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Lead emissions have steadily declined due to catalytic converters and increased use of lead-free gasoline. San Diego is no longer required to monitor for lead (San Diego 2007). Because emissions of lead are found only in projects that are permitted by SDAPCD, lead is not a pollutant of concern for the project.

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/US EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory systems and may exacerbate existing allergies and asthma systems (US EPA 2002).

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Air Quality Management Planning

To ensure continued progress toward clean air and to comply with state and federal requirements, the San Diego Air Pollution Control District (SDAPCD) prepared a revision to the San Diego Regional Air Quality Strategy (2022 RAQS) (SDAPCD 2022). As required by state law, the 2022 RAQS incorporates the most up-to-date emission control aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. The 2022 RAQS focuses on protecting public health and protecting the climate, and complements actions addressing GHGs and climate change. Measures proposed in the 2022 RAQS aim to reduce precursors of ozone, such as VOC and NO_X, and indirectly reduce PM and GHGs. Additionally, the 2022 RAQS include a long-range vision of a carbon neutral economy and its function in San Diego County, in order to demonstrate efforts further reducing GHGs, as indirect reductions will aid other regional efforts to achieve a countywide goal of carbon neutrality by 2045, and statewide GHG reduction and climate targets by 2050.

The SDAB adopted its first RAQS in 1992 and it has undergone seven revisions since. The amended and new rules considered in the current 2022 Revision of the RAQS are estimated to reduce NO_X by approximately 0.59 tons per day and VOC by approximately 0.04 tons per day. The 2022 RAQS provides additional reductions of O_3 precursor emissions relative to the 2016 RAQS and, therefore, is more effective in improving air quality.

The SDAPCD also is required to submit separate attainment plans to demonstrate to the US EPA how the SDAB will achieve compliance with the federal CAA for nonattainment designations. These plans include:

- 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County
- 2020 RACT Demonstration for the National Ambient Air Quality Standards for Ozone in San Diego County
- 2020 Attainment Plan – 8-Hour Ozone (2008 Standard)
- 2012 Maintenance Plan – 8-Hour Ozone (1997 Standard)
- 2007 Attainment Plan – 8-Hour Ozone (1997 Standard)
- 2005 Wildfire Natural Events Action Plan
- 2002 Maintenance Plan – 1-Hour Ozone (1979 Standard)

Additional SDAPCD rules include:

- Rule 1206 – Asbestos Removal, Renovation, and Demolition
- Rule 67.0.1 – Architectural Coatings
- Rule 55 – Fugitive Dust Control
- Rule 20.1 – New Source Review, General Provisions

AREA DESIGNATIONS

The RAQS provides the framework for the SDAB to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Severity classifications for ozone nonattainment are marginal, moderate, serious, severe, and extreme. The following are descriptions of the attainment classifications and the attainment status for the SDAB is included in Table 2, *Attainment Status of Criteria Pollutants in the San Diego Air Basin*:

- Unclassified: a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- Nonattainment/Transitional: a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

Table 2 Attainment Status of Criteria Pollutants in the San Diego Air Basin

Pollutant	State	Federal
Ozone – 8-hour	Nonattainment	Nonattainment
Ozone – 1-hour	Nonattainment	Attainment[1]
CO	Attainment	Attainment
PM_{10}	Nonattainment	Unclassifiable[2]
$PM_{2.5}$	Nonattainment[3]	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	No Federal Standard

Source: SDAPCD 2024a.

1 The federal 1-hour standard of 12 parts per hundred million (pphm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

2 At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

3 The California Air Resources Board (CARB) has not reclassified the region to attainment yet due to (1) incomplete data, and (2) the use of non-California Approved Samplers (CAS). While data collected does meet the requirements for designation of attainment with federal $PM_{2.5}$ standards, the data completeness requirements for state $PM_{2.5}$ standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. SDAPCD has begun replacing most regional filter-based $PM_{2.5}$ monitors as they reach the end of their useful life with continuous $PM_{2.5}$ air monitors to ensure collected data meets stringent completeness requirements in the future. SDAPCD anticipates these new monitors will be approved as "CAS" monitors once CARB review the list of approved monitors, which has not been updated since 2013.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the proposed project site, are best documented by measurements taken by the SDAPCD. The SDAPCD air quality monitoring station closest to the project site is the Chula Vista Monitoring Station, which monitors O_3, NO_2, and $PM_{2.5}$. Data for

PM_{10} is supplemented from the Mission Viejo-26081 Via Pera Monitoring Station. The most current three years of data monitored at these monitoring stations are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show occasional violations of state and federal O_3 standards in the last three years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations[1]		
	2021	2022	2023
Ozone (O_3)[2]			
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	0	0	0
State & Federal 8-Hour > 0.070 ppm (days exceed threshold)	0	0	1
Max. 1-Hour Conc. (ppm)	0.084	0.078	0.082
Max. 8-Hour Conc. (ppm)	0.066	0.066	0.074
Nitrogen Dioxide (NO_2)[2]			
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0
Max. 1-Hour Conc. (ppb)	0.0460	0.0527	0.0523
Coarse Particulates (PM_{10})[3]			
State 24-Hour > 50 µg/m^3 (days exceed threshold)	0	0	0
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m^3)	35.2	31.0	*
Fine Particulates ($PM_{2.5}$)[2]			
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m^3)	24.9	16.2	25.5

Source: CARB 2024b.
Notes: * Data not available; ppm: parts per million; parts per billion, µg/m^3: micrograms per cubic meter
[1] Latest data as of December 2024.
[2] Data obtained from the Chula Vista Monitoring Station.
[3] Data obtained from the Mission Viejo-26081 Via Pera Monitoring Station.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the project site are the residences along Enchanted Place to the north and residences along E. Beyer Boulevard to the west.

Methodology

Projected construction-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.

Thresholds of Significance

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. Air quality impacts are evaluated in accordance with the SDAPCD's *Environmental Review Guidelines, Procedures for Implementing the California Environmental Quality Act* (SDAPCD 2024b) and the City of San Diego *California Environmental Quality Act Significance Determination Thresholds* (San Diego 2022a), which provides local governments with guidance for analyzing and mitigating project-specific air quality impacts.

REGIONAL SIGNIFICANCE THRESHOLDS

Table 4, *San Diego Significance Thresholds for Air Quality Impact Analysis*, lists regional emissions thresholds used in the following analysis.

Table 4 San Diego Significance Thresholds for Air Quality Impact Analysis

Air Pollutant	Threshold	
	lb/day	Tons/year
Volatile Organic Compounds (VOC)	137 lbs/day[1]	15 tons/year[2]
Nitrogen Oxides (NO_X)	250 lbs/day	40 tons/year
Carbon Monoxide (CO)	550 lbs/day	100 tons/year
Sulfur Oxides (SO_X)	250 lbs/day	40 tons/year
Coarse Inhalable Particulates (PM_{10})	100 lbs/day	15 tons/year
Fine Inhalable Particulates ($PM_{2.5}$)[3]	55 lbs/day	10 tons/year

Source: San Diego 2022a
Notes: Based on SDAPCD Rule 1501, 20.2(d)(2).
[1] Threshold for VOCs based on the threshold of significance for VOCs from the South Coast AQMD and the Monterey Bay APCD (MBAPCD) which has similar federal and state attainment status as San Diego.
[2] 13.7 tons per year threshold based on 75 pounds per day multiplied by 365 days per year and divided by 2,000 pounds per ton.
[3] Based on the South Coast AQMD's screening threshold of 55 pounds per day or 10 tons per year as a screening level threshold for PM_2. (South Coast AQMD 2023).

CO HOTSPOTS

The significance of localized project impacts depends on whether the project would cause substantial concentrations of CO. Prior to 1998 the SDAB was designated as nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SDAB and in the state have steadily declined. In 1998, the SDAPCD was designated as in attainment for CO under both the CAAQS and NAAQS and was under a 10-year federal maintenance plan for CO as a result of its redesignation. The current version of the maintenance plan is the *2004 Revision to the California State Implementation Plan (SIP) for Carbon Monoxide Updated Maintenance Plan for Ten Federal Planning Areas*, which was approved as a SIP revision in January 2006. Currently, the Proposed 2023 Revision to the California SIP for Carbon Monoxide (*2023 CO SIP revision*) is

updating the 2004 CO Maintenance Plan to remove the contingency measures and monitoring requirement for 3 of the 10 maintenance areas included in the 2004 CO Maintenance Plan, which includes Chico, Modesto, and Stockton Urbanized Areas (CARB 2024c).

Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2023). Therefore, the potential for CO hotspots to be generated in the SDAB is extremely unlikely because of the improvements in vehicle emission rates and control efficiencies.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[4] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[5] The major GHG are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

[4] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[5] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

    - ***Chlorofluorocarbons (CFCs***) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

    - ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

    - ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

    - ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

    - ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; US EPA 2024b).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fifth Assessment Report (AR5) GWP values for CH_4, a project that generates 10 MT of CH_4 would be equivalent to 250 MT of CO_2.[6]

[6] The global warming potential of a GHG is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Table 5 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Fourth Assessment Report (AR4) Global Warming Potential Relative to CO_2[1]	Fifth Assessment Report (AR5) Global Warming Potential Relative to CO_2[1]	Sixth Assessment Report (AR6) Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	1	1	1
Methane[2] (CH_4)	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Source: IPCC 2007, 2013, and 2023.

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect latest information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting.

1 Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.

2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

California's Greenhouse Gas Sources and Relative Contribution

In 2024, the statewide GHG emissions inventory was updated for 2000 to 2022 emissions using the GWPs in IPCC's AR4 and reported that California produced 371.1 $MMTCO_2e$ GHG emissions in 2022 (2.4 percent lower than 2021 levels). The 2022 emissions data shows that California is continuing its established long-term trend of GHG emissions declines, despite the anomalous emissions trends from 2019 through 2021, due in large part to the impacts of the COVID-19 pandemic. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit (AB 32 target for year 2020) and have remained below the Limit since that time. Additionally, the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross state product (GSP)) is declining (CARB 2024d).

California's transportation sector was the single-largest generator of GHG emissions, producing 37.7 percent of the state's total emissions. Industrial sector emissions made up 19.6 percent, and electric power generation made up 16.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include residential and commercial (10.6 percent), agriculture and forestry (8.0 percent), high GWP (5.7 percent), and recycling and waste (2.2 percent).

Emissions from transportation sector decreased compared to 2021, primarily due to a greater share of fuels used for on-road transportation being produced from non-fossil resources. Industrial sector decreases from 2021 to 2022, most notably in the oil and gas production sector. Electricity emissions also decreased compared to 2021 from the continued growth of in-state solar generation and increases to in-state hydropower and imported wind power. High-GWP gases continue to replace ozone-depleting substances (ODS) being phased out under the 1987 Montreal Protocol and emissions from this sector have been stable from 2020 to 2022 (CARB 2024d).

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The U.S. Environmental Protection Agency (US EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The US EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the US EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (US EPA 2009).

To regulate GHGs from passenger vehicles, US EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per SDAPCD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the US EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2035)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. On March 30, 2020, the US EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which would be a 10 MPG increase relative to model year 2021 (NHTSA 2022).

On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027-2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. The final rules establish standards that would require an industry fleet-wide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027-2031) and for light trucks (model years 2029-2031). For heavy-duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030-2032) and 8 percent per year (model years 2033-2035) (NHTSA 2024).

US EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the US EPA has developed regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the US EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the US EPA issued the final Affordable Clean Energy (ACE) rule, which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence EO. It officially rescinded the Clean Power Plan rule issued during the Obama Administration and set emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants. The Affordable Clean Energy rule was vacated by the United States Court of Appeals for the District of Columbia Circuit on January 19, 2021. The Biden Administration is assessing options on potential future regulations.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order (EO) S-3-05, EO B-30-15, Assembly Bill (AB) 32, AB 1279, Senate Bill (SB) 32 and SB 375.

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030

GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, "Safeguarding California", in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, set a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning that not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279

AB 1279, signed by Governor Newsom in September 2022, codified the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. SB 1279 also requires CARB to update the Scoping Plan to address these new targets.

2022 Climate Change Scoping Plan

CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State's anthropogenic GHG emissions (CARB 2022). The Scoping Plan provides updates to the previously adopted 2017 Scoping Plan and addresses the carbon neutrality goals of EO B-55-18 (discussed below) and the ambitious GHG reduction target as directed by AB 1279. Previous Scoping Plans focused on specific GHG reduction targets for our industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. The 2022 Scoping Plan updates the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent Sixth Assessment Report (AR6) of the IPCC and the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB's 2022 Scoping Plan identifies strategies as shown in Table 6, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals.

Table 6 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide EV charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
VMT Reduction	Reduce or eliminate minimum parking standards.
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: CARB 2022

Based on Appendix D of the 2022 CARB Climate Change Scoping Plan, for residential and mixed-use development projects, CARB recommends first demonstrating that these land use development projects are aligned with State climate goals based on the attributes of land use development that reduce operational GHG emissions while simultaneously advancing fair housing. Attributes that accommodate growth in a manner consistent with the GHG and equity goals of SB 32 have all the following attributes:

- Transportation Electrification
  - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.

- VMT Reduction

- Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).
- Does not result in the loss or conversion of the State's natural and working lands;
- Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's Sustainable Communities Strategy (SCS);
- Reduces parking requirements by:
  - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
  - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
  - For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
- At least 20 percent of the units are affordable to lower-income residents;
- Result in no net loss of existing affordable units.

- Building Decarbonization
  - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking (CARB 2022).

If the first approach to demonstrating consistency is not applicable (such as in the case of this school modernization project), the second approach to project-level alignment with state climate goals is to achieve net zero GHG emissions. The third approach to demonstrating project-level alignment with state climate goals is to align with GHG thresholds of significance, which many local air quality management (AQMDs) and air pollution control districts (APCDs) have developed or adopted (CARB 2022).

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The San Diego Association of Governments (SANDAG), located in Southern California along the California-Baja California Border, is the federally designated MPO for San Diego County. SANDAG adopted San Diego Forward: The 2021 Regional Plan (2021 Regional Plan) in

December 2021 which includes the region's SCS along with the Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP). Currently, SANDAG is developing the Draft 2025 RTP with expected public feedback in spring 2025.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. The 2021 Regional Plan reduces per capita GHG emissions from cars and light-duty trucks to 20 percent below 2005 levels by 2035, exceeding the region's state-mandated target of 19 percent set by CARB (SANDAG 2021).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets became effective in October 2018. All SCSs adopted after October 1, 2018, are subject to these new targets. CARB's updated SB 375 targets for the SCAG region were an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018).

The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of "percent per capita" reductions in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies, such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs to achieve the SB 375 targets. CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018).

SANDAG SCS

SB 375 requires the MPOs to prepare a SCS in their RTP (CARB 2010). As mentioned previously, SANDAG adopted the 2021 Regional Plan, which provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources (SANDAG 2021). Combining the RTP, SCS, and RCP, the Regional Plan complies with state and federal mandates, which involve the inclusion of an SCS to achieve GHG reduction targets set by CARB and compliance with federal civil rights requirements (Title VI); and environmental justice considerations, air quality conformity, and a public participation process. Currently, SANDAG is developing the Draft 2025 RTP with expected public feedback in spring 2025 (SANDAG 2024).

The 2021 Regional Plan is guided by a vision for a fast, fair, and clean transportation system and a resilient region as well as three primary goals: efficient movement of people and good, access to affordable, reliable, and safe mobility options for everyone, as well as healthier air and reduced GHG emissions regionwide.

The SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The SCS includes a land use pattern for forecasted growth and development that focuses on Mobility Hubs, which are communities with high concentrations of people, destinations, and travel choices, to concentrate future development. Beyond land use planning, the SCS also relies on changes to the transportation system to meet the state and federal mandates. To accomplish these targets, the Regional Plan incorporates five transformational strategies known as the 5 Big Moves:

- **Complete Corridors:** Roadways that offer dedicated, safe space for everyone, including people who walk, bike, drive, ride transit, and use Flexible Fleets, as well as those who drive freight vehicles.
- **Transit Leap:** A complete network of fast, convenient, and reliable transit services that connect people from where they live to where they want to go.
- **Mobility Hubs:** Vibrant centers of activity where transit and on-demand travel options, supported by safe streets, connect people with their destinations and businesses with their customers. Mobility Hubs are also planned to accommodate future growth and development.
- **Flexible Fleets:** Transportation services of many forms, varying in size from bikes to scooters to shuttles, that offer first- and last-mile connections to transit and alternatives to driving alone.
- **Next Operating System:** The underlying technology that allows people to connect to transportation services and a digital platform that allows for dynamic management of roadways and transit service.

With its coordinated transportation and land use planning, the SCS would achieve a 20 percent reduction in GHG emissions, exceeding the state's target of a 19 percent reduction from 2005 levels (SANDAG 2021).

Transportation Sector Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the US EPA. In 2012, the US EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. (See also the discussion on the update to the Corporate Average Fuel Economy standards at the beginning of this Section 5.5.2 under "Federal.") In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and uses market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed Executive Order N-79-20, whose goal is that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the state are ZE by 2045, where feasible. The Executive Order's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission [CEC]) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods.

The 2022 Building Energy Efficiency Standards were adopted on August 11, 2021, and went into effect on January 1, 2023. The 2022 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, and more. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

The CEC is currently developing the final code language for the 2025 Building Energy Efficiency Standards, which are anticipated to be adopted in late 2024. The 2025 Building Energy Efficiency Standards will replace the 2022 Building Energy Efficiency Standards and will become effective on January 1, 2026.

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code

requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen standards became effective on January 1, 2023, and provides updates to the residential and non-residential voluntary measures.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[2]

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act

[2] California Building Standards Commission, July 2022, *2022 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11*, https://codes.iccsafe.org/content/CAGBC2022P1/copyright, accessed on April 10, 2024.

required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

AB 1881: Water Conservation in Landscaping Act

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

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to

reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017). In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[7]

GHG EMISSIONS SIGNIFICANCE THRESHOLDS

City of San Diego's CEQA Significance Determination Thresholds

GHG impacts are evaluated in accordance with the City of San Diego *California Environmental Quality Act Significance Determination Thresholds* (San Diego 2022a). The City's CEQA Significance Determination Thresholds for GHG cross reference the CEQA Guidelines Sections 15183.5(b), 15064(h)(3), and 15130(d), which allow for mitigating cumulative GHG impacts through adoption of plan for the reduction of GHG emissions.

City of San Diego Climate Action Plan

In December 2015, the City adopted a 2015 CAP that provides a roadmap for the City to reduce carbon emissions in a cost-effective manner. The 2015 CAP identified five strategies to reduce GHG emissions to meet the City's GHG reduction target of 15 percent below the 2010 baseline levels by 2020 (aligned with AB 32), 40 percent below the 2010 baseline levels by 2030 (aligned with SB 32), and 50 percent below the 2010 baseline levels by 2035. By meeting the 2020 and 2035 targets, the City will maintain its trajectory to meet its proportional share of the 2050 state target (80 percent below 1990 levels by 2050) (San Diego 2015). In August 2022, the City updated the CAP (2022 CAP) that built upon the 2015 CAP and established an updated community-wide goal of net zero by 2035 (aligned with AB 1279) (San Diego 2022b).

[7] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, allows for lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level. Pursuant to CEQA Guidelines Section 15183.5, later project specific environmental documents may tier from and/or incorporate by reference the GHG reduction plan so long as it includes the following plan elements:

- *Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area*. The San Diego CAP includes communitywide GHG emissions for existing conditions and emissions forecast for year 2030, 2035, and year 2050 for emissions sources within the City of San Diego. The inventory and forecast include emissions associated with schools within the City limits. For example, the energy sector (electricity and natural gas) includes building energy associated with all buildings within the City limits except the San Diego County Regional Airport Authority, San Diego Unified Port District, and the military, and the on-road transportation emissions includes VMT from the SANDAG model that includes school trips (since these trips have an origin or destination with the City limits).

- *Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable*. The San Diego CAP aligns the GHG emissions reduction targets for the City with the GHG reduction goals identified for Senate Bill 32 (for year 2030) and Assembly Bill 1279 (for the 2050 horizon year).

- *Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area*. The CAP identifies the business-as-usual forecast for emission sources within the City limits (including schools) and identifies the additional reductions needed to achieve the gap.

- *Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level*. The CAP identifies specific measures and quantifies individual measures that would achieve the gap and achieve the City's local GHG reduction goals. As part of this, the 2015 CAP included a CAP Consistency Checklist to ensure that new development implements the mandatory measures of the CAP. The 2022 update to the CAP mandatory measures were codified as an amendment to the Land Development Code under Chapter 14, Article 3, Division 14: Climate Action Plan Consistency Regulations.

- *Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels*. The CAP was originally adopted in 2015 and updated in 2022. The 2022 CAP includes an implementation and monitoring plan to ensure tracking and monitoring. The City commits to providing an annual progress report and conducting comprehensive GHG emissions inventories at least every two years.

- *Be adopted in a public process following environmental review*. The City of San Diego prepared and certified the Climate Action Plan Program Environmental Impact Report (PEIR) (Project No. 416603/SCH No. 2015021053) in 2015. For the 2022 CAP update, which was adopted by the City Council in August 2022,

the City prepared an Addendum. Therefore, the CAP was adopted in a public process following environmental review.

Based on the above, the San Diego CAP is a qualified GHG reduction plan. As described in Section 3.11, the existing land use designation is Residential, Park, Open Space, & Recreation, and Institutional & Public and Semi-Public Facilities for which recreational and public facilities are permitted uses; and implementation of the proposed project would not change the zoning or land use designations of the site. Therefore, the proposed project is generally consistent with the land use and zoning requirements of the project site and, therefore, emissions associated with the project development are included in GHG forecast in the CAP. Thus, the proposed project's GHG emissions impacts are evaluated based on consistency with the CAP in accordance with CEQA Guidelines Section 15183.5.

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Assumptions Worksheet

CalEEMod Inputs-Beyer Community Resources Center Project, Construction

Name:	Beyer Community Resources Center Project, Construction
Project Number:	SYSD-04
Project Location:	240 Beyer Way, San Ysidro, CA 92173
Land Use Setting:	Rural
Operational Year:	2026
Gas Utility Company:	San Diego Gas & Electric
Electric Utility Company:	San Diego Gas & Electric
Air Basin:	San Diego
Air District:	San Diego County APCD

Project Site Acreage	9.90
Disturbed Site Acreage	5.54

Project Components	SQFT	Amount of Debris (Tons)
Demolition		
Asphalt Demolition	16,930	251
		251

	Building SQFT	Footprint SQFT	Acres	Number of stories
Construction				
Main Lobby	1,000	1,000	0.02	1
Family Resource Center	2,500	2,500	0.06	1
Community Event Center	2,500	2,500	0.06	1
Pupil & Education Services	1,900	1,900	0.04	1
Interior circulation and structures	9,200	9,200	0.21	1
Subtotal	17,100	17,100	0.39	N/A
Surface Work	**Building SQFT**	**Footprint SQFT**	**Acres**	**Number of Stalls**
Landscaping[1]	NA	69,536	1.60	NA
Multi-Purpose Fields	NA	69,500	1.60	NA
Concrete Hardscape[2]	NA	43,000	0.99	NA
Surface Parking	NA	42,000	0.96	100

Notes

[1] Landscaping includes parking lot planter islands and ROW landscaping SQFT.

[2] Concrete hardscape includes sport hardcourts, building courtyard and arcades SQFT.

Land Use Type	Land Use Subtype[1,2]	Unit Amount	Size Metric	Lot Acreage	Building Square Feet	Landscape Area Square Feet	Special Landscape Area Square Feet
Educational	General Office Building	17.10	1000 sqft	3.58	17,100	69,536	69,500
Parking	Other Non-Asphalt Surfaces	43.00	1000 sqft	0.99	NA	0	0
Parking	Parking Lot	42.00	1000 sqft	0.96	NA	0	0
				5.54			

Notes

[1] General Office Building land use represents construction of the Family Resource Center, Community Event Center, and various other building components.

[2] Other Non-Asphalt Surfaces represents concrete hardscape, sport hardcourts, building courtyard and arcades SQFT.

Demolition

Component	Amount to be Demolished	Haul Truck Capacity[1]	Haul Distance (miles)[1]	Total Trip Ends	Duration (days)	Trip Ends Per Day
Asphalt (Tons)	251	16	20	32	13	5
						5

Notes

[1] CalEEMod default used.

Soil Haul

Construction Activities	Volume (CY)[1]	Haul Truck Capacity (CY)[2]	Haul Distance (miles)[2]	Total Trip Ends	Trip Ends per Day	Duration (days)
Site Preparation Export	2,000	16	20	250	83	3
Rough Grading Import	10,000	16	20	1,250	125	10
Fine Grading Import	50,000	16	20	6,250	1,250	5

Notes
[1] Provided by District.
[2] CalEEMod default used.

Architectural Coating

	Percent Painted Default
Interior Painted:	80%
Exterior Painted:	80%

Notes
[1] Provided by District.

SDAPCD Rule 67.0.1.

	Default	
Interior Non-Residential Paint VOC content:	50	grams per liter
Exterior Non-Residential Paint VOC content:	50	grams per liter
Parking Paint VOC contect:	100	grams per liter

Structures	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Non-Residential Structures					
General Office Building	17,100	2.0	34,200	27,360	27,360
				27,360	**27,360**
Parking					
Other Non-Asphalt Surfaces	85,000	6%	5,100	-	5,100
			5,100	**-**	**5,100**

Notes
[1] Paintable interior and exterior areas multiplyied by the total paintable surface area by 80 and 85 percent, respectively.
[2] The program assumes the total surface for painting equals 2.0 times the floor square footage for non-residential square footage defined by the user.
[3] CalEEMod assumes that 6% of parking land use types will be striped.

Construction Mitigation

SDAPCD Rule 55

Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	25	mph
	Clean Paved Road	9	% PM Reduction

San Diego Gas & Electricity Carbon Intensity Factors

	FORECASTED FACTORS 2027	
CO_2:	45.10	pounds per megawatt hour
CH_4:	0.033	pound per megawatt hour
N_2O:	0.004	pound per megawatt hour

Notes:
[1] CalEEMod default values.

Pavement Volume to Weight Conversion

Component	Total SF of Area[1]	Assumed Thickness (foot)[2]	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf)[3]	AC Mass (lbs)	AC Mass (tons)
Asphalt Demolition	16,930	0.333	5,643	89	501,630	250.81
Total	16,930					251

[1] Pavement demolition SQFT provided by District.

[2] Gibbons, Jim. 1999. Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System. https://www.uni-groupusa.org/PDF/NEMO_tech_8.pdf

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Construction Activities and Schedule Assumptions

* durations based on preliminary information from District

Construction Schedule (CalEEMod)			
Construction Activities	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Asphalt Demolition	10/8/2025	10/24/2025	13
Site Preparation	10/27/2025	10/29/2025	3
Rough Grading	10/30/2025	11/12/2025	10
Fine Grading	11/13/2025	11/19/2025	5
Utility Trenching	11/20/2025	12/10/2025	15
Building Construction	12/11/2025	12/8/2026	259
Asphalt Paving	8/31/2026	9/25/2026	20
Architectural Coating	9/1/2026	12/8/2026	71
Finishing/Landscaping	9/15/2026	12/8/2026	61

Overlapping Construction Schedule (CalEEMod)			
Construction Activities	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Asphalt Demolition	10/8/2025	10/24/2025	13
Site Preparation	10/27/2025	10/29/2025	3
Rough Grading	10/30/2025	11/12/2025	10
Fine Grading	11/13/2025	11/19/2025	5
Utility Trenching	11/20/2025	12/10/2025	15
Building Construction	12/11/2025	8/30/2026	187
Building Construction and Asphalt Paving	8/31/2026	8/31/2026	1
Building Construction, Asphalt Paving, and Architectural Coating	9/1/2026	9/14/2026	10
Building Construction, Asphalt Paving, Architectural Coating, and Finishing/Landscaping	9/15/2026	9/25/2026	9
Building Construction, Architectural Coating, and Finishing/Landscaping	9/26/2026	12/8/2026	52

CalEEMod Construction Off-Road Equipment Inputs

Based on information from District. Where information has not been provided by the District, CalEEMod default equipment, worker, and vendor trips have been used.

Construction Equipment Details				
Equipment	**# of Equipment**	**hr/day**	**total trips per day**	**On-Site Water Truck Travel Distance (miles/day)**
Asphalt Demolition				
Rubber Tired Dozers	1	8		
Excavators	1	8		
Concrete/Industrial Saws	1	8		
Tractors/Loaders/Backhoes	3	8		
Worker Trips			12	
Vendor Trips			9	
Hauling Trips			5	
Water Trucks (added to Vendor Trips)	Acres Disturbed:	2	10	1.65
Site Preparation				
Rubber Tired Dozers	3	8		
Tractors/Loaders/Backhoes	7	8		
Worker Trips			12	
Vendor Trips			9	
Hauling Trips			83	
Water Trucks	Acres Disturbed:	5	26	4.13
Rough Grading				
Graders	1	8		
Excavators	1	8		
Tractors/Loaders/Backhoes	6	8		
Rubber Tired Dozers	1	8		
Worker Trips			12	
Vendor Trips			50	
Hauling Trips			125	
Water Trucks (added to Vendor Trips)	Acres Disturbed:	4	20	3.30
Fine Grading				
Graders	1	8		
Excavators	1	8		
Tractors/Loaders/Backhoes	6	8		
Rubber Tired Dozers	1	8		
Worker Trips			12	
Vendor Trips			50	
Hauling Trips			1250	
Water Trucks (added to Vendor Trips)	Acres Disturbed:	4	20	3.30
Utility Trenching				
Tractors/Loaders/Backhoes	3	8		
Worker Trips			6	
Vendor Trips			0	
Hauling Trips			0	
Water Trucks (added to Vendor Trips)	Acres Disturbed:	2	8	1.24

Building Construction				
Forklifts	3	8		
Generator Sets	1	8		
Cranes	1	8		
Welders	1	8		
Tractors/Loaders/Backhoes	3	8		
Worker Trips			10	
Vendor Trips			4	
Hauling Trips			0	
Paving				
Pavers	2	8		
Paving Equipment	2	8		
Rollers	2	8		
Worker Trips			4	
Vendor Trips			4	
Hauling Trips			0	
Architectural Coating				
Air Compressors	1	8		
Worker Trips			4	
Vendor Trips			0	
Hauling Trips			0	
Finishing/Landscaping				
Cranes	1	8		
Tractors/Loaders/Backhoes	3	8		
Worker Trips			6	
Vendor Trips			4	
Hauling Trips			0	

Notes

[1] Included equipment provided for hauling phase for asphalt demolition, site preparation, rough grading, and fine grading.

[2] Vendor and worker trips provided by District.

Vendor Trip from Water Truck Calculation

Amount of Water (gal/ acre/ day)[1]	Water Truck Capacity (gallons)[2]
10,000	4,000

Notes:

[1] Based on data provided in Guidance for Application for Dust Control Permit

Maricopa County Air Quality Department. 2005, June. Guidance for Application of Dust Control Permit. https://www.epa.gov/sites/default/files/2019-04/documents/mr_guidanceforapplicationfordustcontrolpermit.pdf)

[2] Based on standard water truck capacity:

McLellan Industries. 2024, January (access). Water Trucks. https://www.mclellanindustries.com/trucks/water-trucks/

[3] Assumes that dozers, tractors/loaders/backhoes, and graders can disturb 0.50 acres per day and scrapers can disturb 1 acre per day.

CalEEMod Inputs-Knob Hill Elementary School Project, Operation

Name: Beyer Community Resources Center Project, Construction
Project Number: SYSD-04
Project Location: 240 Beyer Way, San Ysidro, CA 92173
Land Use Setting: Rural
Operational Year: 2027
Gas Utility Company: San Diego Gas & Electric
Electric Utility Company: San Diego Gas & Electric
Air Basin: San Diego
Air District: San Diego County APCD

Project Site Acreage	9.90
Disturbed Site Acreage	5.35

CalEEMod Land Use Inputs

	Land Use Subtype[1,2]	Unit Amount	Size Metric	Lot Acreage	Building Square Feet	Landscape Square Feet	Special Landscape Square Feet
Educational	General Office Building	17.10	1000 sqft	3.58	17,100	69,536	69,500
Parking	Other Non-Asphalt Surfaces	43.00	1000 sqft	0.99	NA	0	0
Parking	Parking Lot	42.00	1000 sqft	0.96	NA	0	0
				5.54			

Notes

[1] General Office Building land use represents construction of the Family Resource Center, Community Event Center, and various other building components.
[2] Other Non-Asphalt Surfaces represents concrete hardscape, sport hardcourts, building courtyard and arcades SQFT.

Vehicle Trips [1]

Land Use Type	Average Daily Trips	CalEEMod Trip Rate	Saturday Trips	CalEEMod Trip Rate	Sunday Trips	CalEEMod Trip Rate
General Office Building	132	**7.72**	132	**7.72**	132	**7.72**

Source: Garland Associates, 2025. San Ysidro Beyer Community Resource Center Traffic Impact Study.
Notes:
[1] Trip generation estimated based on ITE Trip Generation Manual (11th edition) for General Office Land Use category.

Water Use [1]

Land Use	Indoor (gals/year)	Outdoor (gals/year)	Total
General Office Building	3,039,247	2,308,581	5,347,828

Notes:
[1] Water use based on CalEEMod default. Assume 100% aerobic treatment.

Solid Waste[1]

Land Use	Total Solid Waste (tons/yr)
General Office Building	15.90

Notes:

[1] Based on CalEEMod default.

Electricity (Buildings)

Default CalEEMod Energy Use

Land Use Subtype	Total Annual Electricity Consumption (kWh/year)	Total Annual Natural Gas Consumption (kBTU/year)	Title-24 Electricity Energy Intensity (kWhr/size/year)[1]	Title-24 Natural Gas Energy Intensity (KBTU/size/year)[1]	Nontitle-24 Electricity Energy Intensity (kWhr/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)
General Office Building	283,767.09	547,593.74	**221,653.91**	**479,268.64**	62,113.18	68,325.10
Parking Lot	36,792.00	0.00	**36,792.00**	**0.00**	0.00	0.00

Architectural Coating

**see Construction assumptions*

San Diego Gas & Electricity Carbon Intensity Factors

	FORECASTED FACTORS 2027	
CO_2:	45.10	pounds per megawatt hour
CH_4:	0.033	pound per megawatt hour
N_2O:	0.004	pound per megawatt hour

Notes:

[1] CalEEMod default values.

Changes to the CalEEMod Defaults - Fleet Mix 2027

Trips 132

Default	HHD	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHD	OBUS	SBUS	UBUS
FleetMix (Model Default)	0.68019079	50.4573166	4.65523787	22.6811439	2.83283964	0.72983732	2.71716937	13.6516884	0.49452279	0.88684531	0.0711255	0.0960206	0.0460601
FleetMix (Model Default) adjusted	0.00680191	0.50457317	0.04655238	0.22681144	0.0283284	0.00729837	0.02717169	0.13651688	0.00494523	0.00886845	0.00071126	0.00096021	0.0004606
Trips	1	67	6	30	4	1	4	18	1	1	0	0	0
Percent		81%			6%			14%					
without buses/MH	0.006802	0.504573	0.046552	0.226811	0.028328	0.007298	0.027172	0.136517	0.004945	0.008868	0	0.000960	0
Percent		81%			6%			14%					
Adjusted without buses/MH	0.006941	0.504573	0.046552	0.226811	0.028909	0.007448	0.027728	0.136517	0.005047	0.009050	0.000000	0.000980	0.000000
Percent adjusted		81%			6%			14%					
Assumed Mix		97.0%			1.00%			2.00%					
	0.001189	0.607493	0.056048	0.273075	0.004952	0.001276	0.033384	0.020000	0.000865	0.001550	0.000000	0.000168	0.000000
adjusted with Assumed	0.118909	60.749291	5.604785	27.307505	0.495229	0.127588	3.338419	2.000000	0.086451	0.155036	0.000000	0.016786	0.000000
Percent Check:		97%			1%			2%					

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

CalEEMod Construction and Operation Model

Beyer Community Resources Center Project Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Beyer Community Resources Center Project
Construction Start Date	10/8/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	240 Beyer Way, San Ysidro, CA 92173, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6666
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	17.1	1000sqft	3.58	17,100	69,536	69,500	—	—

Other Non-Asphalt Surfaces	43.0	1000sqft	0.99	0.00	0.00	0.00	—	—
Parking Lot	42.0	1000sqft	0.96	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.65	5.09	25.9	35.5	0.06	1.01	0.28	1.29	0.93	0.07	1.00	—	6,698	6,698	0.27	0.10	1.50	6,736
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.55	4.19	144	69.7	0.63	2.53	27.9	30.4	2.46	7.98	10.4	—	95,552	95,552	5.20	14.4	5.19	99,985
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.60	1.41	8.99	12.1	0.02	0.34	0.70	0.83	0.31	0.22	0.34	—	2,353	2,353	0.11	0.26	1.59	2,366
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.26	1.64	2.21	< 0.005	0.06	0.13	0.15	0.06	0.04	0.06	—	390	390	0.02	0.04	0.26	392

2.2. Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.65	5.09	25.9	35.5	0.06	1.01	0.28	1.29	0.93	0.07	1.00	—	6,698	6,698	0.27	0.10	1.50	6,736
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	9.55	4.03	144	69.7	0.63	2.53	27.9	30.4	2.46	7.98	10.4	—	95,552	95,552	5.20	14.4	5.19	99,985
2026	4.59	4.19	18.7	25.3	0.05	0.69	0.22	0.91	0.63	0.05	0.69	—	5,041	5,041	0.21	0.07	0.03	5,068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.41	0.28	4.46	3.55	0.01	0.12	0.70	0.83	0.12	0.22	0.33	—	2,109	2,109	0.11	0.26	1.59	2,191
2026	1.60	1.41	8.99	12.1	0.02	0.34	0.10	0.43	0.31	0.02	0.34	—	2,353	2,353	0.10	0.03	0.21	2,366
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.08	0.05	0.81	0.65	< 0.005	0.02	0.13	0.15	0.02	0.04	0.06	—	349	349	0.02	0.04	0.26	363
2026	0.29	0.26	1.64	2.21	< 0.005	0.06	0.02	0.08	0.06	< 0.005	0.06	—	390	390	0.02	0.01	0.04	392

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.10	1.04	0.38	4.75	0.01	0.02	0.81	0.83	0.02	0.20	0.22	15.1	1,034	1,049	0.97	0.04	2.55	1,088
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	0.91	0.40	3.78	0.01	0.02	0.81	0.83	0.02	0.20	0.22	15.1	987	1,002	0.97	0.04	0.11	1,040
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.02	0.96	0.40	4.14	0.01	0.02	0.80	0.82	0.02	0.20	0.22	15.1	995	1,010	0.97	0.04	1.13	1,049

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.18	0.07	0.76	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	2.49	165	167	0.16	0.01	0.19	174

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.49	0.22	3.88	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	812	812	0.04	0.02	2.51	822
Area	0.55	0.54	0.01	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.06	3.06	< 0.005	< 0.005	—	3.07
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	215	215	0.04	< 0.005	—	217
Water	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Waste	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	1.10	1.04	0.38	4.75	0.01	0.02	0.81	0.83	0.02	0.20	0.22	15.1	1,034	1,049	0.97	0.04	2.55	1,088
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.49	0.25	3.66	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	768	768	0.04	0.03	0.07	777
Area	0.41	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	215	215	0.04	< 0.005	—	217
Water	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Waste	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.96	0.91	0.40	3.78	0.01	0.02	0.81	0.83	0.02	0.20	0.22	15.1	987	1,002	0.97	0.04	0.11	1,040
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.48	0.25	3.65	0.01	< 0.005	0.80	0.80	< 0.005	0.20	0.21	—	775	775	0.04	0.03	1.08	784

Area	0.48	0.47	< 0.005	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.51	1.51	< 0.005	< 0.005	—	1.51
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	215	215	0.04	< 0.005	—	217
Water	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Waste	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	1.02	0.96	0.40	4.14	0.01	0.02	0.80	0.82	0.02	0.20	0.22	15.1	995	1,010	0.97	0.04	1.13	1,049
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.09	0.05	0.67	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	128	128	0.01	< 0.005	0.18	130
Area	0.09	0.09	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.25	0.25	< 0.005	< 0.005	—	0.25
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.6	35.6	0.01	< 0.005	—	36.0
Water	—	—	—	—	—	—	—	—	—	—	—	1.08	0.67	1.75	< 0.005	< 0.005	—	2.57
Waste	—	—	—	—	—	—	—	—	—	—	—	1.42	0.00	1.42	0.14	0.00	—	4.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.19	0.18	0.07	0.76	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	2.49	165	167	0.16	0.01	0.19	174

3. Construction Emissions Details

3.1. Asphalt Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.87	1.57	14.8	16.1	0.03	0.59	—	0.59	0.55	—	0.55	—	2,635	2,635	0.11	0.02	—	2,644

Demoliti	—	—	—	—	—	—	0.27	0.27	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.61	0.61	< 0.005	0.06	0.06	—	7.54	7.54	< 0.005	< 0.005	< 0.005	7.91
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.53	0.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	93.9	93.9	< 0.005	< 0.005	—	94.2
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	0.04	0.02	0.66	0.30	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	476	476	0.02	0.07	0.03	496
Hauling	0.03	0.01	0.47	0.17	< 0.005	0.01	0.09	0.10	0.01	0.02	0.03	—	348	348	0.02	0.05	0.02	365
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.86	3.86	< 0.005	< 0.005	0.01	3.92

Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.9	16.9	< 0.005	< 0.005	0.02	17.7
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.01	13.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.80	2.80	< 0.005	< 0.005	< 0.005	2.93
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.15

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.32	3.63	34.9	35.9	0.06	1.49	—	1.49	1.37	—	1.37	—	6,167	6,167	0.25	0.05	—	6,188
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.53	1.53	< 0.005	0.15	0.15	—	16.2	16.2	< 0.005	< 0.005	< 0.005	17.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	50.7	50.7	< 0.005	< 0.005	—	50.9

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.39	8.39	< 0.005	< 0.005	—	8.42
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	0.07	0.03	1.21	0.56	0.01	0.01	0.22	0.24	0.01	0.06	0.07	—	876	876	0.04	0.12	0.06	914
Hauling	0.46	0.12	8.14	2.97	0.04	0.11	1.54	1.66	0.11	0.42	0.53	—	5,990	5,990	0.33	0.94	0.34	6,279
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.20	7.20	< 0.005	< 0.005	0.01	7.52
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.2	49.2	< 0.005	0.01	0.05	51.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.19	1.19	< 0.005	< 0.005	< 0.005	1.25
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.15	8.15	< 0.005	< 0.005	0.01	8.55

3.5. Rough Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	19.6	23.6	0.04	0.85	—	0.85	0.78	—	0.78	—	3,831	3,831	0.16	0.03	—	3,844
Dust From Material Movement	—	—	—	—	—	—	2.78	2.78	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	1.22	1.23	< 0.005	0.12	0.12	—	13.3	13.3	< 0.005	< 0.005	< 0.005	14.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.38

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	0.15	0.07	2.42	1.11	0.01	0.02	0.45	0.47	0.02	0.12	0.15	—	1,753	1,753	0.08	0.25	0.12	1,829
Hauling	0.69	0.18	12.2	4.45	0.06	0.17	2.32	2.48	0.17	0.63	0.80	—	8,985	8,985	0.50	1.41	0.51	9,419
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.0	48.0	< 0.005	0.01	0.05	50.1
Hauling	0.02	0.01	0.33	0.12	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	246	246	0.01	0.04	0.23	258
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.50
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.95	7.95	< 0.005	< 0.005	0.01	8.30
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	40.7	40.7	< 0.005	0.01	0.04	42.8

3.7. Fine Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	19.6	23.6	0.04	0.85	—	0.85	0.78	—	0.78	—	3,831	3,831	0.16	0.03	—	3,844
Dust From Material Movement	—	—	—	—	—	—	2.97	2.97	—	1.37	1.37	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	1.22	1.23	< 0.005	0.12	0.12	—	13.3	13.3	< 0.005	< 0.005	< 0.005	14.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.5	52.5	< 0.005	< 0.005	—	52.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.19
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.69	8.69	< 0.005	< 0.005	—	8.72

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	0.01	109
Vendor	0.15	0.07	2.42	1.11	0.01	0.02	0.45	0.47	0.02	0.12	0.15	—	1,753	1,753	0.08	0.25	0.12	1,829
Hauling	6.89	1.85	122	44.5	0.58	1.65	23.2	24.8	1.65	6.34	8.00	—	89,847	89,847	4.96	14.1	5.06	94,189
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.51
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.0	24.0	< 0.005	< 0.005	0.03	25.1
Hauling	0.10	0.03	1.67	0.61	0.01	0.02	0.31	0.34	0.02	0.09	0.11	—	1,231	1,231	0.07	0.19	1.16	1,291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.97	3.97	< 0.005	< 0.005	< 0.005	4.15
Hauling	0.02	< 0.005	0.31	0.11	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	204	204	0.01	0.03	0.19	214

3.9. Building Construction (2025) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.45	1.21	11.3	14.1	0.03	0.47	—	0.47	0.43	—	0.43	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	108	108	< 0.005	< 0.005	—	108
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.9	17.9	< 0.005	< 0.005	—	18.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	89.6	89.6	< 0.005	< 0.005	0.01	90.8
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	100	100	< 0.005	0.01	0.01	104

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	0.01	3.77
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.11	4.11	< 0.005	< 0.005	< 0.005	4.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.71
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	0.77	7.14	9.41	0.02	0.27	—	0.27	0.25	—	0.25	—	1,760	1,760	0.07	0.01	—	1,766
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.30	1.72	< 0.005	0.05	—	0.05	0.05	—	0.05	—	291	291	0.01	< 0.005	—	292
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	93.0	93.0	< 0.005	< 0.005	0.33	94.4
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.24	103
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	87.8	87.8	< 0.005	< 0.005	0.01	89.0
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.01	103
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.3	59.3	< 0.005	< 0.005	0.09	60.1
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	65.8	65.8	< 0.005	0.01	0.07	68.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.81	9.81	< 0.005	< 0.005	0.02	9.96
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.01	11.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.2	37.2	< 0.005	< 0.005	0.13	37.7
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.24	103
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.94	1.94	< 0.005	< 0.005	< 0.005	1.97
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.39	5.39	< 0.005	< 0.005	0.01	5.63
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.93
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	2.12	2.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	2.12	2.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.22	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.6	34.6	< 0.005	< 0.005	—	34.7
Architectural Coatings	0.41	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.73	5.73	< 0.005	< 0.005	—	5.75
Architectural Coatings	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.2	37.2	< 0.005	< 0.005	0.13	37.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	35.1	35.1	< 0.005	< 0.005	< 0.005	35.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.89	6.89	< 0.005	< 0.005	0.01	6.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Utility Trenching (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.30	5.73	0.01	0.13	—	0.13	0.12	—	0.12	—	871	871	0.04	0.01	—	874
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.24	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	35.8	35.8	< 0.005	< 0.005	—	35.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.93	5.93	< 0.005	< 0.005	—	5.95
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.8	53.8	< 0.005	< 0.005	0.01	54.5
Vendor	0.02	0.01	0.28	0.13	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	200	200	0.01	0.03	0.01	209
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.26
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.23	8.23	< 0.005	< 0.005	0.01	8.60
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.42
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Finishing/Landscaping (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.55	8.80	0.02	0.25	—	0.25	0.23	—	0.23	—	1,861	1,861	0.08	0.02	—	1,868
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.80	0.67	6.55	8.80	0.02	0.25	—	0.25	0.23	—	0.23	—	1,861	1,861	0.08	0.02	—	1,868
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.13	0.11	1.09	1.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	311	311	0.01	< 0.005	—	312
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.02	0.02	0.20	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.5	51.5	< 0.005	< 0.005	—	51.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.26	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	55.8	55.8	< 0.005	< 0.005	0.20	56.6
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.24	103
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.01	53.4
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.3	98.3	< 0.005	0.01	0.01	103
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.88	8.88	< 0.005	< 0.005	0.01	9.01
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	0.02	17.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.47	1.47	< 0.005	< 0.005	< 0.005	1.49
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.72	2.72	< 0.005	< 0.005	< 0.005	2.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.53	0.49	0.22	3.88	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	812	812	0.04	0.02	2.51	822
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.53	0.49	0.22	3.88	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	812	812	0.04	0.02	2.51	822
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	0.53	0.49	0.25	3.66	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	768	768	0.04	0.03	0.07	777
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.53	0.49	0.25	3.66	0.01	< 0.005	0.81	0.82	< 0.005	0.20	0.21	—	768	768	0.04	0.03	0.07	777
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.10	0.09	0.05	0.67	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	128	128	0.01	< 0.005	0.18	130
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.10	0.09	0.05	0.67	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	128	128	0.01	< 0.005	0.18	130

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	35.1	35.1	0.03	< 0.005	—	36.6
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.55	4.55	< 0.005	< 0.005	—	4.75
Total	—	—	—	—	—	—	—	—	—	—	—	—	39.6	39.6	0.03	< 0.005	—	41.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	35.1	35.1	0.03	< 0.005	—	36.6
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.55	4.55	< 0.005	< 0.005	—	4.75
Total	—	—	—	—	—	—	—	—	—	—	—	—	39.6	39.6	0.03	< 0.005	—	41.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	5.80	5.80	< 0.005	< 0.005	—	6.06
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.75	0.75	< 0.005	< 0.005	—	0.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	6.56	6.56	< 0.005	< 0.005	—	6.85

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

General Office Building	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	176
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.1	29.1	< 0.005	< 0.005	—	29.1
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.1	29.1	< 0.005	< 0.005	—	29.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.13	0.12	0.01	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.06	3.06	< 0.005	< 0.005	—	3.07
Total	0.55	0.54	0.01	0.74	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.06	3.06	< 0.005	< 0.005	—	3.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.41	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coating	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.25	0.25	< 0.005	< 0.005	—	0.25
Total	0.09	0.09	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.25	0.25	< 0.005	< 0.005	—	0.25

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	6.49	4.07	10.6	0.03	0.01	—	15.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.08	0.67	1.75	< 0.005	< 0.005	—	2.57
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.08	0.67	1.75	< 0.005	< 0.005	—	2.57

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.57	0.00	8.57	0.86	0.00	—	30.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.42	0.00	1.42	0.14	0.00	—	4.96
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.42	0.00	1.42	0.14	0.00	—	4.96

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Asphalt Demolition	Demolition	10/8/2025	10/24/2025	5.00	13.0	—
Site Preparation	Site Preparation	10/27/2025	10/29/2025	5.00	3.00	—
Rough Grading	Grading	10/30/2025	11/12/2025	5.00	10.0	—
Fine Grading	Grading	11/13/2025	11/19/2025	5.00	5.00	—
Building Construction	Building Construction	12/11/2025	12/8/2026	5.00	259	—
Paving	Paving	8/31/2026	9/25/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	9/1/2026	12/8/2026	5.00	71.0	—
Utility Trenching	Trenching	11/20/2025	12/10/2025	5.00	15.0	—
Finishing/Landscaping	Trenching	9/15/2026	12/8/2026	5.00	61.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

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

Site Preparation	Tractors/Loaders/Back	Diesel	Average	7.00	8.00	84.0	0.37
Rough Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Rough Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Rough Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Rough Grading	Tractors/Loaders/Backhoes	Diesel	Average	6.00	8.00	84.0	0.37
Fine Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Fine Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Fine Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Fine Grading	Tractors/Loaders/Backhoes	Diesel	Average	6.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Utility Trenching	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Finishing/Landscaping	Cranes	Diesel	Average	1.00	8.00	367	0.29
Finishing/Landscaping	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Asphalt Demolition	—	—	—	—
Asphalt Demolition	Worker	12.0	12.0	LDA,LDT1,LDT2
Asphalt Demolition	Vendor	19.0	7.63	HHDT,MHDT
Asphalt Demolition	Hauling	4.85	20.0	HHDT
Asphalt Demolition	Onsite truck	1.00	1.65	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	12.0	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	35.0	7.63	HHDT,MHDT
Site Preparation	Hauling	83.3	20.0	HHDT
Site Preparation	Onsite truck	1.00	4.13	HHDT
Rough Grading	—	—	—	—
Rough Grading	Worker	12.0	12.0	LDA,LDT1,LDT2
Rough Grading	Vendor	70.0	7.63	HHDT,MHDT
Rough Grading	Hauling	125	20.0	HHDT
Rough Grading	Onsite truck	1.00	3.30	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	10.0	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	4.00	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	4.00	12.0	LDA,LDT1,LDT2
Paving	Vendor	4.00	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.00	12.0	LDA,LDT1,LDT2

Architectural Coating	Vendor	0.00	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	—	HHDT
Fine Grading	—	—	—	—
Fine Grading	Worker	12.0	12.0	LDA,LDT1,LDT2
Fine Grading	Vendor	70.0	7.63	HHDT,MHDT
Fine Grading	Hauling	1,250	20.0	HHDT
Fine Grading	Onsite truck	1.00	3.30	HHDT
Utility Trenching	—	—	—	—
Utility Trenching	Worker	6.00	12.0	LDA,LDT1,LDT2
Utility Trenching	Vendor	8.00	7.63	HHDT,MHDT
Utility Trenching	Hauling	0.00	20.0	HHDT
Utility Trenching	Onsite truck	0.00	—	HHDT
Finishing/Landscaping	—	—	—	—
Finishing/Landscaping	Worker	6.00	12.0	LDA,LDT1,LDT2
Finishing/Landscaping	Vendor	4.00	7.63	HHDT,MHDT
Finishing/Landscaping	Hauling	0.00	20.0	HHDT
Finishing/Landscaping	Onsite truck	0.00	—	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	0.00	0.00	27,360	27,360	5,100

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)
Asphalt Demolition	0.00	0.00	0.00	251	—
Site Preparation	0.00	2,000	4.50	0.00	—
Rough Grading	10,000	0.00	10.0	0.00	—
Fine Grading	50,000	0.00	5.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.95

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

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	0.99	0%
Parking Lot	0.96	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	540	0.03	< 0.005
2026	0.00	45.1	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	132	132	132	48,184	1,160	1,160	1,160	423,314
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	27,360	27,360	5,100

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	283,767	45.1	0.0330	0.0040	547,594
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00
Parking Lot	36,792	45.1	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	3,039,247	2,308,581
Other Non-Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	15.9	—
Other Non-Asphalt Surfaces	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

8. User Changes to Default Data

Screen	Justification
Land Use	Based on District information, see assumptions file
Construction: Construction Phases	Based on District information, see assumptions file

Construction: Off-Road Equipment	Based on preliminary information provided by District, see assumptions file
Construction: Trips and VMT	Based on preliminary information provided by District, calculated onsite water truck trip length, see assumptions file
Construction: Architectural Coatings	80 percent of buildings' interior and exterior painted based on preliminary information provided by District
Operations: Fleet Mix	Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.
Operations: Architectural Coatings	80 percent of buildings' interior and exterior painted based on preliminary information provided by District
Operations: Water and Waste Water	Assume 100 percent aerobic treatment
Operations: Vehicle Data	Based on Traffic Impact Study and ITE Generation Manual, see assumptions file

Emissions Worksheet

Regional Construction Emissions Worksheet:

3.1. Asphalt Demolition (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	1.57	14.80	16.10	0.03	0.59	0.55
	Demolition	0.00	0.00	0.00	0.00	0.27	0.04
	Onsite truck	0.01	0.02	0.01	0.01	0.61	0.06
	Total	**1.58**	**14.82**	**16.11**	**0.04**	**1.47**	**0.65**
Offsite							
	Worker	0.05	0.04	0.49	0.00	0.10	0.02
	Vendor	0.02	0.66	0.30	0.01	0.13	0.04
	Hauling	0.01	0.47	0.17	0.01	0.10	0.03
	Total	**0.08**	**1.17**	**0.96**	**0.01**	**0.33**	**0.09**
TOTAL		***1.66***	***15.99***	***17.07***	***0.05***	***1.80***	***0.74***

3.3. Site Preparation (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	3.63	34.90	35.90	0.06	1.49	1.37
	Dust From Material Movement	0.00	0.00	0.00	0.00	7.68	3.94
	Onsite truck	0.01	0.03	0.02	0.01	1.53	0.15
	Total	**3.64**	**34.93**	**35.92**	**0.07**	**10.70**	**5.46**
Offsite							
	Worker	0.05	0.04	0.49	0.00	0.10	0.02
	Vendor	0.03	1.21	0.56	0.01	0.24	0.07
	Hauling	0.12	8.14	2.97	0.04	1.66	0.53
	Total	**0.20**	**9.39**	**4.02**	**0.05**	**2.00**	**0.62**
TOTAL		***3.84***	***44.32***	***39.94***	***0.12***	***12.70***	***6.08***

3.5. Rough Grading (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	2.07	19.60	23.60	0.04	0.85	0.78
	Dust From Material Movement	0.00	0.00	0.00	0.00	2.78	1.34
	Onsite truck	0.01	0.03	0.01	0.01	1.23	0.12
	Total	**2.08**	**19.63**	**23.61**	**0.05**	**4.86**	**2.24**
Offsite							
	Worker	0.05	0.04	0.49	0.00	0.10	0.02
	Vendor	0.07	2.42	1.11	0.01	0.47	0.15
	Hauling	0.18	12.20	4.45	0.06	2.48	0.80
	Total	**0.30**	**14.66**	**6.05**	**0.07**	**3.05**	**0.97**
TOTAL		***2.38***	***34.29***	***29.66***	***0.12***	***7.91***	***3.21***

3.7. Fine Grading (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	2.07	19.60	23.60	0.04	0.85	0.78
	Dust from Material Movement	0.00	0.00	0.00	0.00	2.97	1.37
	Onsite truck	0.01	0.03	0.01	0.01	1.23	0.12
	Total	**2.08**	**19.63**	**23.61**	**0.05**	**5.05**	**2.27**
Offsite							
	Worker	0.05	0.04	0.49	0.00	0.10	0.02
	Vendor	0.07	2.42	1.11	0.01	0.47	0.15
	Hauling	1.85	122.00	44.50	0.58	24.80	8.00
	Total	**1.97**	**124.46**	**46.10**	**0.59**	**25.37**	**8.17**
TOTAL		***4.05***	***144.09***	***69.71***	***0.64***	***30.42***	***10.44***

3.9. Building Construction (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	1.21	11.30	14.10	0.03	0.47	0.43
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**1.21**	**11.30**	**14.10**	**0.03**	**0.47**	**0.43**
Offsite							
	Worker	0.04	0.03	0.41	0.00	0.08	0.02
	Vendor	0.01	0.14	0.06	0.01	0.03	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.05**	**0.17**	**0.47**	**0.01**	**0.11**	**0.03**
TOTAL		***1.26***	***11.47***	***14.57***	***0.04***	***0.58***	***0.46***

3.11. Building Construction (2026) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	1.16	10.70	14.10	0.03	0.41	0.38
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**1.16**	**10.70**	**14.10**	**0.03**	**0.41**	**0.38**
Offsite							
	Worker	0.04	0.03	0.43	0.00	0.08	0.02
	Vendor	0.01	0.13	0.06	0.01	0.03	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.05**	**0.16**	**0.49**	**0.01**	**0.11**	**0.03**
TOTAL		***1.21***	***10.86***	***14.59***	***0.04***	***0.52***	***0.41***

3.13. Paving (2026) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	0.29
	Paving	0.13	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.89**	**7.12**	**9.94**	**0.01**	**0.32**	**0.29**
Offsite							
	Worker	0.01	0.01	0.17	0.00	0.03	0.01
	Vendor	0.01	0.13	0.06	0.01	0.03	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.02**	**0.14**	**0.23**	**0.01**	**0.06**	**0.02**
TOTAL		***0.91***	***7.26***	***10.17***	***0.02***	***0.38***	***0.31***

3.15. Architectural Coating (2026) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	0.16	1.14	1.51	0.01	0.03	0.03
	Architectural Coating	2.12	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**2.28**	**1.14**	**1.51**	**0.01**	**0.03**	**0.03**
Offsite							
	Worker	0.01	0.01	0.17	0.00	0.03	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.01**	**0.17**	**0.00**	**0.03**	**0.01**
TOTAL		***2.29***	***1.15***	***1.68***	***0.01***	***0.06***	***0.04***

3.17. Utility Trenching (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Winter**					
	Off-Road Equipment	0.32	3.30	5.73	0.01	0.13	0.12
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.32**	**3.30**	**5.73**	**0.01**	**0.13**	**0.12**
Offsite							
	Worker	0.02	0.02	0.24	0.00	0.05	0.01
	Vendor	0.01	0.28	0.13	0.01	0.05	0.02
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.03**	**0.30**	**0.37**	**0.01**	**0.10**	**0.03**
TOTAL		***0.35***	***3.60***	***6.10***	***0.02***	***0.23***	***0.15***

3.19. Finishing/Landscaping (2026) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Summer**					
	Off-Road Equipment	0.67	6.55	8.80	0.02	0.25	0.23
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.67**	**6.55**	**8.80**	**0.02**	**0.25**	**0.23**
Offsite							
	Worker	0.02	0.02	0.26	0.00	0.05	0.01
	Vendor	0.01	0.13	0.06	0.01	0.03	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.03**	**0.15**	**0.32**	**0.01**	**0.08**	**0.02**
TOTAL		***0.70***	***6.70***	***9.12***	***0.03***	***0.33***	***0.25***

	VOC	**NOx**	**CO**	**SO2**	**PM10 Total**	**PM2.5 Total**

Asphalt Demolition	*2*	*16*	*17*	*0*	*2*	*1*
Site Preparation	*4*	*44*	*40*	*0*	*13*	*6*
Rough Grading	*2*	*34*	*30*	*0*	*8*	*3*
Fine Grading	*4*	*144*	*70*	*1*	*30*	*10*
Utility Trenching	*0*	*4*	*6*	*0*	*0*	*0*
Building Construction 2025	*1*	*11*	*15*	*0*	*1*	*0*
Building Construction 2026	*1*	*11*	*15*	*0*	*1*	*0*
Building Construction and Asphalt Paving	*2*	*18*	*25*	*0*	*1*	*1*
Building Construction, Asphalt Paving, and Architectural Coating	*4*	*19*	*26*	*0*	*1*	*1*
Building Construction, Asphalt Paving, Architectural Coating, and Finishing/Landscaping	*5*	*26*	*36*	*0*	*1*	*1*
Building Construction, Architectural Coating, and Finishing/Landscaping	*4*	*19*	*25*	*0*	*1*	*1*
MAX DAILY (lbs/day)	**5**	**144**	**70**	**1**	**30**	**10**
San Diego Significance Thresholds	**137**	**250**	**550**	**250**	**100**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Regional Construction Emissions Worksheet:

3.1. Asphalt Demolition (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Annual**					
	Off-Road Equipment	0.01	0.10	0.10	0.01	0.01	0.01
	Demolition	0.00	0.00	0.00	0.00	0.01	0.01
	Onsite truck	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.11**	**0.11**	**0.01**	**0.02**	**0.02**
Offsite							
	Worker	0.01	0.01	0.01	0.00	0.01	0.01
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**
TOTAL		***0.03***	***0.12***	***0.12***	***0.02***	***0.03***	***0.03***

3.3. Site Preparation (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Annual**					
	Off-Road Equipment	0.01	0.05	0.05	0.01	0.01	0.01
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.01	0.01
	Onsite truck	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.06**	**0.06**	**0.01**	**0.02**	**0.02**
Offsite							
	Worker	0.01	0.01	0.01	0.00	0.01	0.01
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**
TOTAL		***0.03***	***0.08***	***0.07***	***0.02***	***0.04***	***0.04***

3.5. Rough Grading (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Annual**					
	Off-Road Equipment	0.01	0.10	0.12	0.01	0.01	0.01
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.01	0.01
	Onsite truck	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.11**	**0.13**	**0.01**	**0.03**	**0.02**
Offsite							
	Worker	0.01	0.01	0.01	0.00	0.01	0.01
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.01	0.06	0.02	0.01	0.01	0.01
	Total	**0.02**	**0.08**	**0.04**	**0.01**	**0.02**	**0.02**
TOTAL		***0.03***	***0.18***	***0.16***	***0.02***	***0.05***	***0.04***

3.7. Fine Grading (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Annual**					
	Off-Road Equipment	0.01	0.05	0.06	0.01	0.01	0.01
	Dust from Material Movement	0.00	0.00	0.00	0.00	0.01	0.01
	Onsite truck	0.01	0.01	0.01	0.01	0.01	0.01
	Total	**0.02**	**0.06**	**0.07**	**0.01**	**0.02**	**0.02**
Offsite							
	Worker	0.01	0.01	0.01	0.00	0.01	0.01
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.01	0.31	0.11	0.01	0.06	0.02
	Total	**0.02**	**0.33**	**0.12**	**0.01**	**0.07**	**0.03**
TOTAL		***0.03***	***0.38***	***0.19***	***0.02***	***0.09***	***0.05***

3.9. Building Construction (2025) - Unmitigated							
		VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite		**Annual**					
	Off-Road Equipment	0.01	0.08	0.11	0.01	0.01	0.01
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.08**	**0.11**	**0.01**	**0.01**	**0.01**
Offsite							
	Worker	0.01	0.01	0.01	0.00	0.01	0.01
	Vendor	0.01	0.01	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
TOTAL		***0.02***	***0.09***	***0.12***	***0.01***	***0.02***	***0.02***

3.11. Building Construction (2026) - Unmitigated

	VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite	**Annual**					
Off-Road Equipment	0.14	1.30	1.72	0.01	0.05	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.14**	**1.30**	**1.72**	**0.01**	**0.05**	**0.05**
Offsite						
Worker	0.01	0.01	0.05	0.00	0.01	0.01
Vendor	0.01	0.02	0.01	0.01	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.03**	**0.06**	**0.01**	**0.02**	**0.01**
TOTAL	***0.15***	***1.33***	***1.78***	***0.01***	***0.07***	***0.06***

3.13. Paving (2026) - Unmitigated

	VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite	**Annual**					
Off-Road Equipment	0.01	0.07	0.10	0.01	0.01	0.01
Paving	0.01	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.07**	**0.10**	**0.01**	**0.01**	**0.01**
Offsite						
Worker	0.01	0.01	0.01	0.00	0.01	0.01
Vendor	0.01	0.01	0.01	0.01	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
TOTAL	***0.03***	***0.08***	***0.11***	***0.01***	***0.02***	***0.02***

3.15. Architectural Coating (2026) - Unmitigated

	VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite	**Annual**					
Off-Road Equipment	0.01	0.04	0.05	0.01	0.01	0.01
Architectural Coating	0.08	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.04**	**0.05**	**0.01**	**0.01**	**0.01**
Offsite						
Worker	0.01	0.01	0.01	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**
TOTAL	***0.10***	***0.05***	***0.06***	***0.01***	***0.01***	***0.01***

3.17. Utility Trenching (2025) - Unmitigated

	VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite	**Annual**					
Off-Road Equipment	0.01	0.02	0.04	0.01	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.02**	**0.04**	**0.01**	**0.01**	**0.01**
Offsite						
Worker	0.01	0.01	0.01	0.00	0.01	0.01
Vendor	0.01	0.01	0.01	0.01	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
TOTAL	***0.02***	***0.03***	***0.05***	***0.01***	***0.02***	***0.02***

3.19. Finishing/Landscaping (2026) - Unmitigated

	VOC	NOx	CO	SO$_2$	PM10 Total	PM2.5 Total
Onsite	**Annual**					
Off-Road Equipment	0.02	0.20	0.27	0.01	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.20**	**0.27**	**0.01**	**0.01**	**0.01**
Offsite						
Worker	0.01	0.01	0.01	0.00	0.01	0.01
Vendor	0.01	0.01	0.01	0.01	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.01**
TOTAL	***0.03***	***0.21***	***0.29***	***0.01***	***0.02***	***0.02***

	VOC	NOx	CO	SO2	PM10 Total	PM2.5 Total
Asphalt Demolition	*0.03*	*0.12*	*0.12*	*0.02*	*0.03*	*0.03*
Site Preparation	*0.03*	*0.08*	*0.07*	*0.02*	*0.04*	*0.04*
Rough Grading	*0.03*	*0.18*	*0.16*	*0.02*	*0.05*	*0.04*
Fine Grading	*0.03*	*0.38*	*0.19*	*0.02*	*0.09*	*0.05*
Utility Trenching	*0.02*	*0.03*	*0.05*	*0.01*	*0.02*	*0.02*
Building Construction 2025	*0.02*	*0.09*	*0.12*	*0.01*	*0.02*	*0.02*
Building Construction 2026	*0.15*	*1.33*	*1.78*	*0.01*	*0.07*	*0.06*
Building Construction and Asphalt Paving	*0.18*	*1.41*	*1.89*	*0.02*	*0.08*	*0.08*
Building Construction, Asphalt Paving, and Architectural Coating	*0.27*	*1.45*	*1.95*	*0.03*	*0.09*	*0.09*
Building Construction, Asphalt Paving, Architectural Coating, and Finishing/Landscaping	*0.30*	*1.66*	*2.24*	*0.04*	*0.11*	*0.11*
Building Construction, Architectural Coating, and Finishing/Landscaping	*0.28*	*1.58*	*2.13*	*0.03*	*0.10*	*0.09*
2025	**0.03**	**0.38**	**0.19**	**0.02**	**0.09**	**0.05**
2026	**0.30**	**1.66**	**2.24**	**0.04**	**0.11**	**0.11**
MAX ANNUAL (tons/year)	**0.30**	**1.66**	**2.24**	**0.04**	**0.11**	**0.11**
San Diego Significance Thresholds	**15**	**40**	**100**	**40**	**15**	**10**
Exceeds Thresholds?	No	No	No	No	No	No

Regional Operation Emissions Worksheet

[1] CalEEMod, Version 2022.1

Proposed Project - MAX Daily

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.49	0.22	3.88	0.01	0.82	0.21
Area	0.54	0.01	0.74	0.01	0.01	0.01
Energy	0.01	0.15	0.12	0.01	0.01	0.01
Total	**1.04**	**0.38**	**4.74**	**0.02**	**0.84**	**0.23**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.49	0.25	3.66	0.01	0.82	0.21
Area	0.41	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.15	0.12	0.01	0.01	0.01
Total	**0.91**	**0.40**	**3.78**	**0.02**	**0.83**	**0.22**

Max Daily (lbs/year)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.49	0.25	3.88	0.01	0.82	0.21
Area	0.54	0.01	0.74	0.01	0.01	0.01
Energy	0.01	0.15	0.12	0.01	0.01	0.01
Total	**1.04**	**0.40**	**4.74**	**0.02**	**0.84**	**0.23**
San Diego Thresholds	**137**	**250**	**550**	**250**	**100**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Proposed Project - MAX Annual

Max Annual (tons/year)

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	0.09	0.05	0.67	0.01	0.15	0.04
Area	0.09	0.01	0.07	0.01	0.01	0.01
Energy	0.01	0.03	0.02	0.01	0.01	0.01
Total	**0.19**	**0.09**	**0.76**	**0.02**	**0.16**	**0.05**
San Diego Thresholds	**15**	**40**	**100**	**40**	**15**	**10**
Exceeds Thresholds?	No	No	No	No	No	No

GHG Emissions Inventory

Proposed Project Buildout

Operation[1]

	$MTCO_2e$	%
Mobile	130	75%
Area	0	0%
Energy	36	21%
Water	3	1%
Solid Waste	5	3%
Refrigerants	0	0%
	174	100%

Notes

1 CalEEMod, Version 2022.1

San Diego 2015 CAP Consistency Checklist

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: Beyer Community Resource Center

Property Address: 2323 E Beyer Blvd, San Ysidro, CA 92173

Applicant Name/Co.: Dr. Jose Iniguez, San Ysidro School District

Contact Phone: (619) 428-4476 Contact Email: jose.iniguez@sysdschools.org

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: Kailie Johnson Gutierrez Contact Phone: (619) 233-1023 ext. 394

Company Name: RNT Architects Contact Email: johnson@rntarchitects.com

Project Information

1. What is the size of the project (acres)? 5 Acres

2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units):
   - ☐ Residential (indicate # of multi-family units):
   - ☐ Commercial (total square footage):
   - ☐ Industrial (total square footage):
   - ■ Other (describe): Community resource center, event space, and administrative offices

3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No

4. Provide a brief description of the project proposed:

This project includes a 12,000 SF, 1-story building to be located at the northwest side of the property. Site improvements include landscaping, sport courts, and paved parking for 104 vehicles.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR, B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR, C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?	☑	☐

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

Existing zoning is RS-1-7

General Plan Land Use Designation includes: Park, Open Space, & Recreation, and Institutional & Public and Semi-Public Facilities

Community Plan Land Use Designation includes: Park, and Institutional

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. Clay Roof Tiles: > 2:12 roof slope Minimum 3-yr. aged solar reflectance 0.38 Thermal emittance: 0.82 PVC Roofing Membrane: < 2:12 roof slope Minimum 3-yr. aged solar reflectance 0.74 Thermal emittance: 0.84	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings*

With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:

Residential buildings:

- Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;
- Standard dishwashers: 4.25 gallons per cycle;
- Compact dishwashers: 3.5 gallons per cycle; and
- Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?

Nonresidential buildings:

- Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and
- Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)?

☑ ☐ ☐

Check "N/A" only if the project does not include any plumbing fixtures or fittings.

Water closet	1.28 gallons/flush max.
Wall-mounted urinal	0.125 gallons/flush max.
Lav. faucet	0.5 gpm @ 60 psi max.
Single shower head	1.8 gpm @ 80 psi max.
Kitchen faucets	1.8 gpm @ 60 psi max.
Dishwasher (residential grade)	4.25 gallons per cycle max.

Per 2022 CalGreen 5.303

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces. Per SDMC Table 142-05G 100 parking stalls total 8 designated low-emitting, fuel-efficient and carpool/vanpool vehicle stalls required Per 2022 CalGreen Table 5.106.5.3.1 17 EV-capable spaces required 4 EV-charging stations required	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. Per SDMC Chapter 14.2.5: 5 short-term bicycle spaces required 5 long-term bicycle spaces required Per 2022 CalGreen 5.106.4 5 short-term bicycle spaces required 5 long-term bicycle spaces required	☑	☐	☐

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

36 employees: 1 shower stall and (2) two-tier lockers provided

☑	☐	☐

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

per chart above:
100 parking stalls total
9 designated low-emitting, fuel-efficient and carpool/vanpool vehicle stalls required

☑ ☐ ☐

7. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees). N/A, project will accommodate <50 tenant-occupants (employees)	☐	☐	☑

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	**Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**	
Appliance/Fixture Type	**Standard**	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*.	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)