Appendix B

Air Quality Technical Report

Santee Town Center Specific Plan Update

Air Quality Technical Report

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Acronyms and Abbreviations

AAM	Annual Arithmetic Mean
AAQS	Ambient Air Quality Standards
ADT	average daily trips
AEN	Arts and Entertainment Neighborhood
ALUCP	Airport Land Use Compatibility Plan
APN	Assessor Parcel Number
Attainment Plan	2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
City	City of Santee
CO	carbon monoxide
County	County of San Diego
DPM	diesel particulate matter
GHG	greenhouse gas
H_2S	hydrogen sulfide
HAP	Housing Acceleration Program
HCD	California Department of Housing and Community Development
HE	Housing Element
LOS	Level of Service
mg/m^3	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment

Acronyms and Abbreviations (cont.)

Pb	lead
PM	particulate matter
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ppm	parts per million
RAQS	Regional Air Quality Strategy
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SDG&E	San Diego Gas and Electric
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SO_X	sulfur oxides
SR	State Route
TAC	toxic air contaminant
TCSP	Town Center Specific Plan
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts associated with the City of Santee (City) Town Center Specific Plan (TCSP) Amendment Project (project). The report evaluates the potential for criteria air pollutant emission impacts during the construction and operation of the project. The project proposes updates to the existing TCSP and to the Santee Arts and Entertainment Neighborhood (AEN). It also proposes conceptual planning and objective design standards for four large strategic Housing Elements (HE) within the TCSP area. The HE sites include Properties 16A, 16B, 20A, and 20B as delineated in the Sixth Cycle Housing Element EIR. The overall TCSP is approximately 651.42 acres, of which 341.72 acres are within the AEN, 11.04 acres are within HE Property 16A, 8.65 acres are within HE Property 16B, 7.76 acres are within Property 20A, and 9.92 acres are within Property 20B. The entire TCSP is located in the City of Santee, bordered by North Magnolia Avenue to the east, Mast Boulevard to the north, and Mission Gorge Road to the south. The western border of the TCSP runs through the San Diego River approximately 0.43-mile west of Cuyamaca Street and 0.27-mile east of Carlton Hills Boulevard.

Future development within the TCSP area would not result in an increase in development or an increase in traffic generation over what would occur under buildout of the adopted zoning and land use designations and would therefore not conflict with the San Diego County Ozone Attainment Plan or Regional Air Quality Strategy. Criteria pollutant and precursor pollutant emissions generated during project construction activities would not exceed the San Diego County Air Pollution Control District (SDAPCD) thresholds. Long-term operational emissions of criteria pollutants and precursors associated with the four HE sites would not exceed the SDAPCD thresholds, and the impacts would be less than significant. However, the long-term operational emissions of criteria pollutants and precursors generated by full buildout of the TCSP would result in exceedances to SDAPCD's daily screening thresholds for VOC, CO, PM_{10}, and $PM_{2.5}$. With implementation of mitigation measure AQ–1 requiring the use of electric landscaping equipment, VOC, CO, PM_{10}, $PM_{2.5}$ emissions would be reduced, but remain above their respective thresholds resulting in a significant and unavoidable operational impact.

Construction and operation of the project would not expose sensitive receptors to substantial concentrations of toxic air contaminants, including diesel particulate matter emissions from the use of construction equipment. The project's contribution to area traffic would not result in carbon monoxide hotspots. Project residents would not be exposed to substantial pollutant concentrations based on the proposed project location. Impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

Neither construction activities nor long-term operation of the project would be a source of objectionable odors that would adversely affect a significant number of persons, and odor impacts would be less than significant.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes potential air quality impacts associated with the City of Santee (City) Town Center Specific Plan (TCSP) Amendment Project (project) and includes an assessment of potential impacts associated with project construction and project operation. The project proposes to update the City of Santee General Plan, modify the Arts and Entertainment Neighborhood (AEN), and provide objective design standards and contextual designs for four strategic Housing Element (HE) sites within the TCSP. Analysis within this report was prepared to support impact analysis pursuant to the California Environmental Quality Act (CEQA; Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations).

1.2 PROJECT LOCATION

The project area is located in the City of Santee, in the eastern portion of the County of San Diego, north of State Route (SR) 52 and west of SR 67 (Figure 1, *Regional Location*). The proposed project area extends across over 1,000 Assessor's Parcel Numbers (APNs), within the TCSP Area in the central portion of the City, bounded by Mission Gorge Road to the south, Mast Boulevard to the north, and Magnolia Avenue to the east (Figure 2, *Aerial Photograph*). Cuyamaca Street runs north-south through the western portion of the project area, forming segments of the western project boundary, and the San Diego River runs through the central northern portion of the project area (Figure 2). The topography of the project area is bisected by the San Diego River, which originates within the Santa Ysabel Open Space Preserve East and flows west and southwest and ultimately reaches the Pacific Ocean.

The overall project area consists of 651.42 acres, which includes the proposed AEN (341.72 acres) and four HE Properties: Lot 16A is 11.04 acres, Lot 16B is 8.65 acres, Lot 20A is 7.76 acres, and Lot 20B is 9.92 acres.

1.3 PROJECT DESCRIPTION

The proposed project consists of a comprehensive update to the TCSP to modify or establish new land use designations, land uses, development standards, and conceptual guidelines that would apply to future development within the TCSP area. As part of this effort, the City would also make modifications to the AEN and provide objective design standards and conceptual designs for strategic HE sites within the TCSP. A more detailed description of each of the proposed project components is described below.

1.3.1 Town Center Specific Plan

Amendments to the TCSP would incorporate relevant updates to the plan's vision, land use permissions, and development standards. As part of the updates, new text and graphics would be developed and organized into a series of chapters, such as: Introduction, Land Use and Urban Form, Mobility and Beautification, Infrastructure and Public Facilities, Implementation, and Administration. Text and concepts that remain relevant to the vision and goals of the TCSP would be maintained and incorporated into the updated TCSP document format and structure.

The amended TCSP would incorporate updated allowable and permitted land uses and development standards tailored to the project area. The updated TCSP would include graphics that illustrate the planned land use concepts and the plan's vision at key sites. As part of the TCSP, the circulation network exhibits of the plan would be updated, including the bicycle, pedestrian, and transit network maps, and street cross sections. The TCSP would include concepts for key improvements in the public right-of-way to enhance circulation within the project area. The TCSP would incorporate concepts to illustrate wayfinding and branding signage at important locations within the public right-of-way and public trails, such as signs tailored for pedestrian, bicyclists and transit users, signs designed to direct vehicular traffic and refer to parking areas, as well as iconic gateway structures that enhance the identity and sense of place in the project area.

The TCSP would also outline fundamental elements for the administration of the plan, such as the process for future specific plan amendments, and the development review, permit, and approval process for projects within the TCSP area. Additionally, the TCSP would address the relationship between the TCSP document and other planning documents, as well as consistency with the General Plan. The TCSP would also include a section describing how to use the document and guide reviewers and applicants through the path for review and approval of proposals within the TCSP area.

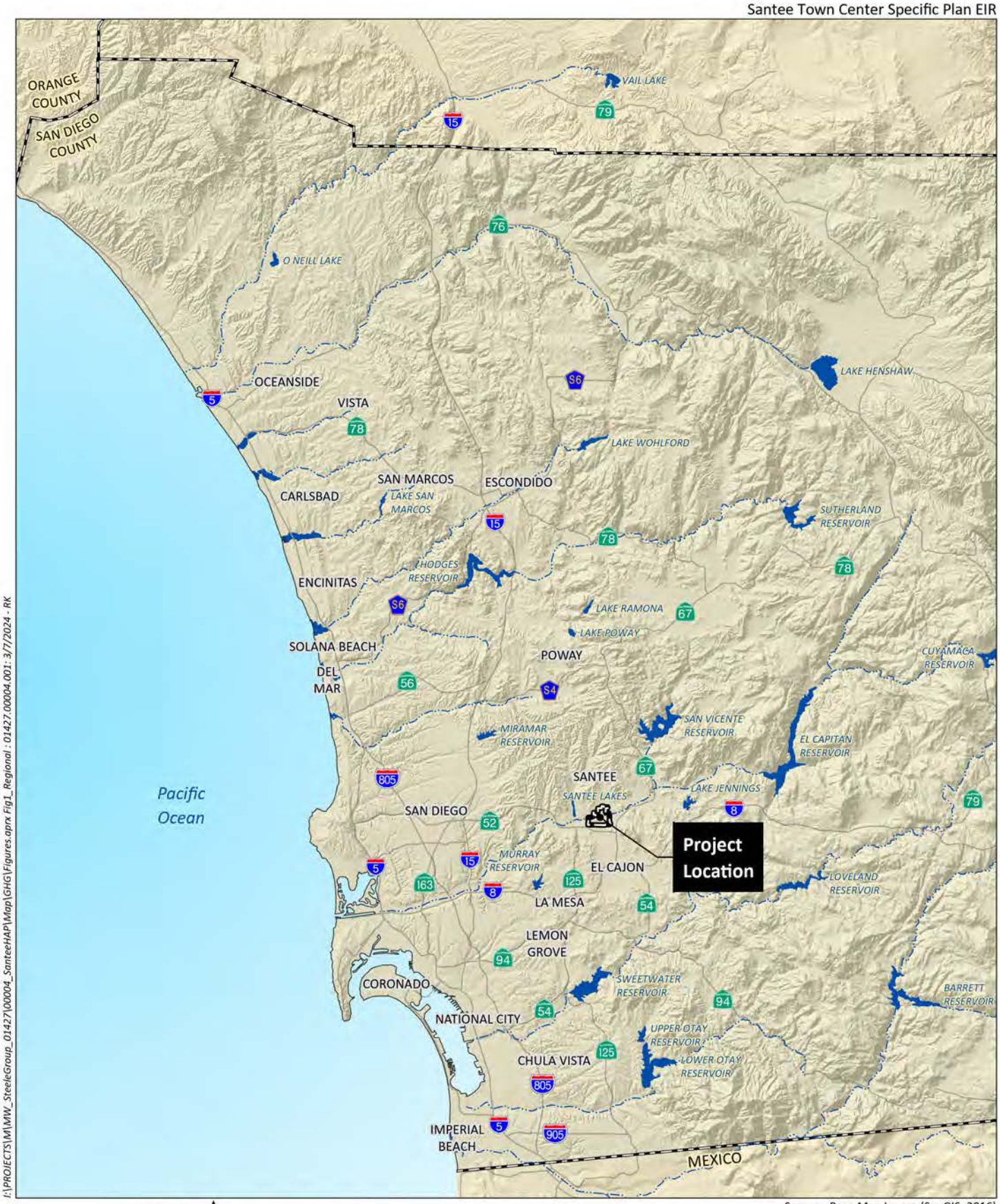
Finally, the TCSP amendment would also incorporate an adjustment to the Specific Plan boundaries to include additional sites such as the shopping center located at the northwest corner of Mission Gorge Road and Cuyamaca Road, and the shopping center located west of Cuyamaca Road, between Mission Creek Drive and River Park Drive. As a result of the boundary adjustment, the TCSP area would expand from 609.70 to 651.42 acres,[1] increasing by 41.72 acres.

1.3.2 Arts and Entertainment Neighborhood

The TCSP would include an amendment to the AEN. The City adopted the AEN in 2019 with the intent of encouraging the development of an Arts & Entertainment Neighborhood within a significant portion of the TCSP. The update would incorporate the vision, guidelines, and development standards specific to the AEN as a subsection of the Land Use and Urban Form chapter of the TCSP. This section of the TCSP would also incorporate tailored land use designations that support uses related to art and culture, entertainment, commercial recreation, visitor, and civic uses.

The update to the vision and development standards for the AEN would aim to enhance connections to the San Diego River, strengthen the sense of place by creating an attraction for residents and visitors to gather, and public space concepts that would incorporate streetscape concepts with features such as landscaping, water elements, shade, lighting, and wayfinding. The concepts would also aim to create a central destination within the TCSP area, with a strong emphasis on connecting Arts & Entertainment to the natural environment.

[1] The original Town Center Specific Plan published in 1986 cited the TCSP area as 706 acres, however amendments to the plan have reduced the Specific Plan total acreage. Additionally, the original acreage was based on an estimate; due to improved geographic information software over time, the number of reported acres in the TCSP has changed as the accuracy of the data has increased.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

- Proposed Santee Town Center Specific Plan
- Proposed Arts and Entertainment Neighborhood
- Site 16A
- Site 16B
- Site 20A
- Site 20B

0 850 Feet

Source: Aerial (SanGIS, 2023)

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Aerial Photograph

Figure 2

Additionally, the update would incorporate an adjustment to the AEN boundaries to include additional sites such as the open space designated areas along the San Diego River, areas north of the San Diego River, south of Riverwalk Drive, west of River Park Drive, east of Cuyamaca Street, and west of Magnolia Avenue. As a result of the boundary adjustments, the AEN area would expand from 172.49[2] to 341.72 acres, increasing by a total of 169.23 acres.

1.3.3 Four Strategic Housing Element Sites (2021-2029 Sixth Cycle)

The City Council adopted the Housing Element (2021-2029 Sixth Cycle) on May 11, 2022. The HE was prepared in compliance with State housing law as determined by the California Department of Housing and Community Development (HCD) on December 6, 2022. The HE included a Sites Inventory map and table (Figure C-1 and Table C-1 of the HE), that included a series of sites that are currently undeveloped or underutilized. The identified sites provide an opportunity for the City to meet its Regional Housing Needs Allocation (RHNA) housing production goals. Four strategic undeveloped housing sites identified in the Sites Inventory are located within the boundary of the TCSP and the AEN. The sites are identified as 16A, 16B, 20A, and 20B. Sites 16A and 16B are undeveloped sites located just north of Mission Gorge Road and east of Riverview Parkway in the Santee Town Center. The area surrounding the sites is primarily developed with Santee Trolley Square immediately west of the site, the Las Colinas Detention Facility to the east, and open space associated with the San Diego River to the north. A portion of Site 16A is located within the Airport Safety Zone 4 as designated in the Gillespie Field Airport Land Use Compatibility Plan (ALUCP). Sites 20A and 20B are undeveloped sites located just west of Magnolia Avenue, south of Riverview Parkway, and east of Edgemoor Drive. Sites 20A and 20B surround the Historic Edgemoor Polo or Dairy Barn. To the west of Site 20A is the Las Colinas Detention Facility, to the east is a gated 55+ manufactured home community. Site 20B is bordered by single-family residential homes to the south, multifamily residential to the east, and Las Colinas and Riverview Office Park to the west. A portion of the site is located within the Gillespie Field ALUCP Airport Safety Zone 4. The sites are proposed to be developed with residential uses.

The HE Implementation Program identified specific sites that would require rezoning to allow for residential uses, and/or to allow for the estimated housing capacity included in the HE. The HE proposed zoning changes for sites 16A, 16B, 20A, and 20B. As part of the realization of the Housing Element Implementation Program, the City analyzed and approved the re-zone of the four above-mentioned sites and adopted the rezoning on October 26, 2022. The zoning for sites 16A, 16B, 20A, and 20B as a result of the HE Implementation Program can be found in Table 1, *Housing Element Sites Zoning.*

Table 1
HOUSING ELEMENT SITES ZONING

Site	Size (acres)	Current Zoning	Current Density (dwelling units per acre)
16A	11.11	Residential (TC-R-30)	30 to 36
16B	8.61	Residential (TC-R-14)	14 to 22
20A	7.75	Residential (TC-R-22)	22 to 30
20B	10.00	Residential (TC-R-30)	30 to 36

[2] The 2019 Art and Entertainment Overlay District refers to 155 acres; however, current GIS data shows 172 acres for the same area.

To further advance the housing production in Santee, City staff applied for a Housing Acceleration Program (HAP) grant from the San Diego Association of Governments (SANDAG), which was awarded. The HAP grant provides funding for project-level analysis of HE sites 16A, 16B, 20A, and 20B. The amended TCSP will include graphics and data that illustrate site planning and development concepts for each of these sites based on the maximum allowable density allowed by zoning.

1.3.4 Construction Best Management Practices

The project would incorporate best management practices (BMPs) required by law during construction to reduce emissions of fugitive dust. For example, the San Diego County Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control regulates visible dust/dirt beyond the property line of a project. SDAPCD Rule 55 requires the following (SDAPCD 2009):

(1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.

(2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:

(i) be minimized by the use of any of the following or equally effective track-out/carry-out and erosion control measures that apply to the project or operation:

(a) track-out grates or gravel beds at each egress point;

(b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and

(c) for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and

(ii) be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM_{10}- (particulate matter less than 10 microns) efficient street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

The control measures listed below are the BMPs that are required by applicable law that the project would incorporate for dust control and are included in the modeling:

- A minimum of two applications of water shall be applied during grading between dozer/grader passes;
- Paving, chip sealing, or chemical stabilization of internal roadways shall be applied after completion of grading;
- Grading shall be terminated if winds exceed 25 miles per hour (mph);
- All exposed surfaces shall maintain a minimum soil moisture of 12 percent;

- Dirt storage piles shall be stabilized by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds shall be limited to 15 mph on unpaved roads.

2.0 REGULATORY SETTING

The project site is located within the San Diego Air Basin (SDAB). Air quality in the SDAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the SDAPCD at the regional level.

2.1 AIR POLLUTANT DESCRIPTORS AND TERMINOLOGY

2.1.1 Criteria Air Pollutants

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the public. In general, criteria air pollutants include the following compounds:

- Ozone (O_3)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM), which is further subdivided:
  - Coarse PM, 10 microns or less in diameter (PM_{10})
  - Fine PM, 2.5 microns or less in diameter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])[3] and nitrogen oxides (NO_X).

Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region,

[3] CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be meaningfully correlated to the incremental contribution from a project.

The following specific descriptions of health effects for each air pollutant associated with project construction and operation are based on information available through the USEPA (2024a) and CARB (2024a).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and NO_X, both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen monoxide with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. PM_{10} refers to particulate matter (PM) with an aerodynamic diameter of 10 microns or less. $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified as a carcinogen by CARB.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure.

Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air pollutant of concern for the proposed project.

2.1.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs may be carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as DPM. Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2024a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2024a).

2.2 FEDERAL REGULATIONS

2.2.1 Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants. The CAA allows states to adopt ambient air quality standards (AAQS) and other regulations provided they are at least as stringent as federal standards. Table 2, *Ambient Air Quality Standards*, shows the federal and state AAQS for these pollutants.

Table 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	9 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles	**No Federal Standards**	**No Federal Standards**
Sulfates	24 Hour	25 µg/m^3	**No Federal Standards**	**No Federal Standards**
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	**No Federal Standards**	**No Federal Standards**
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	**No Federal Standards**	**No Federal Standards**

Source: CARB 2016 and USEPA 2024b

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information of the data presented in this table can be found at the CARB website (www.arb.ca.gov).

O_3 = ozone; ppm = parts per million; µg/m^3 = micrograms per cubic meter; PM_{10} = large particulate matter; AAM = Annual Arithmetic Mean; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; mg/m^3 = milligrams per cubic meter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; km= kilometer; – = No Standard.

Areas that do no meet the AAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The air quality attainment status of the SDAB is shown in Table 3, *San Diego Air Basin Attainment Status*. On July 2, 2021, the SDAB was re-classified as a severe- nonattainment area for the 8-hour NAAQS for ozone (USEPA 2024c). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM_{10} and $PM_{2.5}$. On February 7, 2024, the USEPA announced a final rule to lower the annual arithmetic mean (AAM) primary NAAQS for $PM_{2.5}$ from 12 to 9 µg/m^3. The new final rule retains the existing 24-hour primary NAAQS for $PM_{2.5}$ of 35 µg/m^3 and the existing

AAM secondary NAAQS for $PM_{2.5}$ of 15.0 µg/m^3 (USEPA 2024b). As of this analysis, attainment classification for the 2024 primary AAM PM2.5 NAAQS has not been completed.

Table 3
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State of California Designation
Ozone (1-hour)	No Federal Standard	Nonattainment
Ozone (8-hour)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM_{10})	Unclassifiable[1]	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment[2]	Nonattainment[3]
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified

Source: SDAPCD 2024a

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

[2] The Federal attainment designation for the $PM_{2.5}$ NAAQS reflects the designation for the 2012 NAAQS. As of this analysis, attainment classification for the 2024 primary AAM $PM_{2.5}$ NAAQS has not been completed.

[3] 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.

2.3 STATE REGULATIONS

2.3.1 California Clean Air Act

CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles (see Table 2). Areas that do not meet the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$ (SDAPCD 2024a). The current state attainment status designations for the SDAB are provided in Table 3, above.

CARB is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The SDAPCD is responsible for developing and implementing the rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, developing of air quality management plans, and adopting and enforcing air pollution regulations for San Diego County (County).

2.3.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable PM, CO, NO_2, and SO_2 to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all the items that are included in the California SIP (CARB 2024b). At any one time, several California submittals are pending USEPA approval.

2.3.3 California Energy Code

California Code of Regulations Title 24 Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results primarily in off-site greenhouse gas (GHG) emissions.

2.3.4 Toxic Air Contaminants

The Health and Safety Code (Section 39655[a]) 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 pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

2.3.5 California Health and Safety Code

The State of California Health and Safety Code Section 41700 prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. Health and Safety Code Section 41705 states that these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals; operations that produce, manufacture, or handle compost; or operations that compost green material or animal waste products derived from agricultural operations.

2.4 LOCAL REGULATIONS

2.4.1 Attainment Plan

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The regional air quality plan for San Diego County for attainment of the NAAQS is SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* (Attainment Plan; SDAPCD 2020). The Attainment Plan, which would be a revision to the SIP, outlines SDAPCD's plans and control measures designed to attain the NAAQS for ozone. For attainment of the CAAQS, the SDAPCD must prepare an updated State Ozone Attainment Plan to identify possible new actions to further reduce emissions. Initially adopted in 1992, the Regional Air Quality Strategy (RAQS) identifies measures to reduce emissions from sources regulated by the SDAPCD, primarily stationary sources such as industrial operations and manufacturing facilities. The RAQS is periodically updated to reflect updated information on air quality, emission trends, and new feasible control measures, and was last updated in 2023 (SDAPCD 2023). These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan, RAQS, and SIP.

2.4.2 San Diego Air Pollution Control District Rules and Regulations

Future development pursuant to the project would be required to comply with SDAPCD Rules and Regulations which require the incorporation of BMPs during construction to reduce emissions of fugitive dust.

Rule 50 (Visible Emissions)

Particulate matter pollution impacts the environment by decreasing visibility (haze). These particles vary greatly in shape, size, and chemical composition, and come from a variety of natural and manufactured sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of $PM_{2.5}$. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment.

Visibility reduction is probably the most apparent symptom of air pollution. Visibility degradation is caused by the absorption and scattering of light by particles and gases in the atmosphere before it reaches the observer. As the number of fine particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Light absorption by gases and particles is sometimes the cause of discolorations in the atmosphere but usually does not contribute very significantly to visibility degradation. Scattering by particulates impairs visibility much more readily. SDAPCD Rule 50 (Visible Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale (SDAPCD 1997).

Rule 51 (Nuisance)

SDAPCD Rule 51 (Nuisance) states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance

to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of the rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals (SDAPCD 1976).

Rule 55 (Fugitive Dust Control)

SDAPCD Rule 55 (Fugitive Dust Control) requires action be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 (Fugitive Dust Control) places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of track-out/carry-out shall be minimized through implementation of control measures and removed at the conclusion of each workday using street sweepers (SDAPCD 2009).

Rule 67.0.1 (Architectural Coatings)

SDAPCD Rule 67.0.1 (Architectural Coatings) requires residential interior/exterior flat coatings to be less than or equal to 50 grams per liter VOC content and interior/exterior non-flat coatings to be less than or equal to 50 grams per liter VOC content. Coatings used for markings within parking areas are required to contain less than or equal to 100 grams per liter VOC content (SDAPCD 2021).

3.0 EXISTING CONDITIONS

The southern and northern portions of the project area are developed lands associated with commercial office buildings, residential development, and recreational activities (parks and baseball fields). The center of the project area is bisected by the San Diego River. The San Diego River flows through the eastern boundary of the project area and continues in an eastward direction until it exits the project area and continues in a mostly westward direction. An unnamed tributary to the San Diego River flows through the northern boundary of the project area and continues generally in a southward direction until it meets the San Diego River.

3.1 CLIMATE/METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the large-scale meteorological condition that dominates the west coast of the United States: a seasonally semi-permanent high-pressure cell centered over the northeastern Pacific Ocean, called the Pacific high, which keeps most storms from affecting the California coast. Areas within 30 miles of the coast in the San Diego region, including the project area, experience moderate temperatures and comfortable humidity.

Temperature inversion layers (inversions; layers of warmer air over colder air) affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). The highest air pollutant concentrations in the SDAB generally occur during inversions. During the summer, worsened air quality conditions in the SDAB are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons (VOCs) and NO_X react under the strong, abundant sunlight in the San Diego region, creating smog. Light,

daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, declines in air quality are created due to CO and NO_X emissions. High NO_X levels usually occur during autumn or winter, on days with summer-like conditions.

The predominant wind direction in the vicinity of the project is from the west and the average wind speed is approximately six mph (Iowa Environmental Mesonet 2024). The annual average maximum temperature in the project area is approximately 78 degrees Fahrenheit (°F), and the annual average minimum temperature is approximately 52°F. Total precipitation in the project area averages approximately 12 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center 2016).

3.2 EXISTING AIR QUALITY

The SDAPCD operates a network of ambient air monitoring stations throughout the County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The El Cajon-Lexington Elementary School Monitoring Station, located at 533 First Street in El Cajon, approximately four miles south of the project site is representative of the climatological and topographical conditions at the project area. No monitoring station in San Diego County has PM_{10} monitoring data for the sampled period. Air quality data are shown on Table 4, *Air Quality Monitoring Data.*

Table 4
AIR QUALITY MONITORING DATA

Pollutant Standard	2020	2021	2022
Ozone (O_3) – El Cajon-Lexington Elementary Station			
Maximum concentration 1-hour period (ppm)	0.094	0.088	0.100
Maximum concentration 8-hour period (ppm)	0.083	0.077	0.088
Days above 1-hour state standard (>0.09 ppm)	0	0	1
Days above 8-hour state/federal standard (>0.070 ppm)	14	3	2
Fine Particulate Matter ($PM_{2.5}$) – El Cajon-Lexington Elementary Station			
Maximum 24-hour concentration (µg/m^3)	38.2	30.2	26.4
Measured Days above 24-hour federal standard (>35 µg/m^3)	2	0	0
Annual average (µg/m^3)	11.6	10.4	*
Exceed state and federal annual standard (12 µg/m^3)	No	No	*
Nitrogen Dioxide (NO_2) – El Cajon-Lexington Elementary Station			
Maximum 1-hour concentration (ppm)	0.044	0.038	0.036
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.008	0.006	0.008
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No

Source: CARB 2024c.
ppm = parts per million; µg/m^3 = micrograms per cubic meter, * = insufficient data available.

3.3 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 CRITERIA POLLUTANT EMISSIONS

Air emissions from mobile, area, and energy sources were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air quality management and pollution control districts (CAPCOA 2022).

In brief, CalEEMod is a computer model that estimates criteria air pollutant and GHG emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user. In various places the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment, the default parameters were relied upon unless otherwise described below. The CalEEMod output files are included as Appendix A to this report.

4.1.1 Construction Emissions

The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

The modeling recognizes the project must conform with SDAPCD Rule 67, as described in Section 2.4.2, limiting the VOC content of architectural coatings to 50 grams per liter and paved area coatings to 100 grams per liter. The modeling also recognizes that the project must perform fugitive dust control in accordance with the SDAPCD Rule 55 and the BMPs described in Section 1.3.4, specifically watering exposed areas twice per day, enforcing a 15-mph speed limit on unpaved surfaces, and maintaining a minimum moisture content of 12 percent for unpaved roads.

4.1.1.1 Housing Element Sites

Construction emissions for HE sites 16A, 16B, 20A, and 20B were estimated based on the timeline provided by the project applicant, which assumes construction would begin in January 2025 and last approximately 18 months. It should be noted that there are currently no plans being reviewed nor projects entitled by the City for these sites. Construction activities would include site preparation, grading, building construction, architectural coatings, and paving. Construction is assumed to occur six days per week with equipment operating up to eight hours per day. Architectural coatings are assumed to occur concurrently with the last five months of building construction. The construction schedule assumed in the modeling is shown in Table 5, *Housing Element Sites Anticipated Construction Schedule.*

Table 5
HOUSING ELEMENT SITES ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Site Preparation	1/1/2025	1/23/2025	20
Grading	1/24/2025	3/17/2025	45
Building Construction	3/18/2025	5/28/2026	375
Architectural Coatings	1/1/2026	7/8/2026	162
Paving	5/29/2026	7/8/2026	35

Construction would require the use of heavy off-road equipment. Construction equipment estimates are based on default values in CalEEMod, Version 2022.1. Table 6, *Housing Element Sites Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 6
HOUSING ELEMENT SITES CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Horsepower	Number	Hours/Day
Site Preparation			
Rubber Tired Dozers	367	3	8
Tractors/Loaders/Backhoes	84	4	8
Grading			
Excavators	36	2	8
Graders	148	1	8
Rubber Tired Dozers	367	1	8
Scrapers	426	2	8
Tractors/Loaders/Backhoes	84	2	8
Building Construction			
Cranes	367	2	4.4
Forklifts	82	4	7.5
Generator Sets	14	2	5
Tractors/Loaders/Backhoes	84	4	6.6
Welders	46	2	5
Architectural Coating			
Air Compressors	37	1	6

Equipment	Horsepower	Number	Hours/Day
Paving			
Pavers	81	2	8
Paving Equipment	89	2	8
Rollers	36	2	8

Source: CalEEMod

Worker commute trips and vendor delivery trips were modeled based on CalEEMod defaults. Worker trips are anticipated to vary between 18 and 1,279 trips per day, depending on construction phase. The CalEEMod default worker, vendor and haul trip distances were used in the model.

4.1.1.2 Remaining Town Center Specific Plan Land Uses

Construction-related activities are temporary, short-term sources of emissions. Sources of construction-related air emissions include construction equipment exhaust; construction-related trips by workers, delivery and hauling truck trips; and fugitive dust from grading activities. The quantity of air pollutants generated by the construction of projects within the proposed TCSP would vary depending upon the number of projects occurring simultaneously and the size of each individual project. Since the proposed TCSP is a land use plan that guides physical development for 20+ years, specific construction details such as the exact number and timing of all development projects are unknown. The intensity of construction activity associated with the proposed TCSP could be the same during each year. It is more likely, however, that some periods of construction (and associated emissions) would be more intense than other periods due to market conditions and population and housing demands.

While neither SDAPCD nor the City of Santee provides additional guidance on construction assumptions for plan-level analyses, some air districts such as the Sacramento Metropolitan Air Quality Management District (SMAQMD) suggest that lead agencies conservatively assume that construction-generated emissions associated with the build-out of a plan should be evaluated assuming 25 percent of the total land uses would be constructed in a single year (SMAQMD 2016). This conservative assumption was used to evaluate the potential construction-related air quality impacts from projects that could occur under the proposed TCSP Amendment. The land uses modeled in the 25 percent scenario are listed in Table 7, *Land Use Profile – First Year of Construction*. Modeling relied upon CalEEMod default activities, fleet mixes, and vehicle trips based on land use type and size.

Table 7
LAND USE PROFILE – FIRST YEAR OF CONSTRUCTION

Lande Use	Acres	Building Size
Retail	132.89	592,258 square feet
Regional Shopping	8.81	24,625 square feet
Civic/Institutional	45.74	187,223 square feet
Office Commercial	24.76	240,206 square feet
Park	59.36	59.36 acres
Residential (TC-R-14)	42.31	793 dwelling units
Residential (TC-R-22)	23.58	867 dwelling units

Note: HE Sites excluded, as they are provided in the analysis described in Section 4.1.1.1.

Given that exhaust emissions from the construction equipment fleet are expected to decrease over time as stricter standards take effect, 25 percent of the construction emissions were conservatively modeled to occur in 2027, following delivery of the HE Sites. Additional details are available in Appendix A. As construction occurs in later years, advancements in engine technology, retrofits, and turnover in the equipment fleet are anticipated to result in lower levels of emissions.

4.1.2 Operational Emissions

4.1.2.1 Area Source Emissions

Area sources typically include emissions from landscaping equipment, the use of consumer products, the reapplication of architectural coatings for maintenance, and hearths. Project emissions associated with area sources were estimated using the CalEEMod default values except for hearths, as the project would not include wood burning stoves or fireplaces, or natural gas fireplaces.

4.1.2.2 Energy Emissions

Development within the project would use electricity for lighting, heating, and cooling. Natural gas and electricity would be supplied by San Diego Gas and Electric (SDG&E). Direct emissions from the burning of natural gas typically results from furnaces, hot water heaters, and kitchen appliances. Electricity generation typically entails the off-site generation of electricity, such as through combustion of fossil fuels, including natural gas and coal, which is then transmitted to end users. A building's electricity use is thus associated with the off-site or indirect emission of GHGs at the source of electricity generation (power plant). CalEEMod conservatively assumes the use of natural gas appliances based on historical data while newer construction typically includes more electric appliances. Default natural gas and electricity demand quantities from CalEEMod were used in this analysis and the emissions factors for SDG&E provided in CalEEMod were applied to these energy demand values to calculate the resulting emissions.

4.1.2.3 Vehicular (Mobile) Sources

Operational emissions from mobile source emissions are associated with vehicle trip generation and trip length. Based on the project trip generation rate from the Local Transportation Study, the four strategic HE sites would generate 8,520 new average daily trips (ADT) while the remaining TCSP land uses would generate an additional 51,511 ADT (Intersecting Metrics 2024). Default vehicle speeds, trip purpose, and trip distances from CalEEMod were applied to these trips.

4.2 AIR QUALITY SIGNIFICANCE CRITERIA

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's California Environmental Quality Act Guidelines Appendix G. A significant air quality and/or odor impact could occur if the implementation of the proposed project would:

1. Conflict with or obstruct implementation of the Attainment Plan or applicable portions of the SIP;

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is non-attainment under an applicable NAAQS or CAAQS;

3. Expose sensitive receptors to substantial pollutant concentrations; or

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

To determine whether the project would result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or the ozone precursors NO_X and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD and SCAQMD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (SDAPCD 2019). Rule 20.2 does not contain thresholds for VOCs. The SDAPCD and City of Santee do not have thresholds related to VOCs; therefore, this analysis considers guidance provided by the County of San Diego to consider the impact of VOC emissions. The County recommends the use of the SCAQMD (Coachella Valley portion) screening level established for VOCs, as these thresholds are generally stricter emissions thresholds than established by the SDAPCD. Therefore, to evaluate the significance of VOC emissions, this analysis used the SCAQMD daily threshold and its annual equivalent (County 2007).

These screening criteria were used as numeric methods to determine if the project would result in a significant impact to air quality or an adverse effect on human health. The screening thresholds are shown in Table 8, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 8
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Emissions		
	Pounds per Hour	Pounds per Day	Tons per Year
Respirable Particulate Matter (PM_{10})	--	100	15
Fine Particulate Matter ($PM_{2.5}$)	--	67	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	--	3.2	0.6
Volatile Organic Compounds (VOC)	--	75	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: SDAPCD 2019; County 2007
T-BACT = Toxics-Best Available Control Technology

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Impacts from odors are subjective by nature and their measurements are difficult to quantify. As a result, analysis related to this threshold is qualitative and focuses on the nature of the project's uses, existing and potential surrounding uses and location of sensitive receptors. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor

complaints from a "considerable" number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

5.0 Impact Analysis

5.1 ISSUE 1: CONSISTENCY WITH THE ATTAINMENT PLAN

The Attainment Plan outlines SDAPCD's plans and control measures designed to attain the NAAQS for ozone. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and SIP.

The Attainment Plan relies on information from CARB and SANDAG, including projected growth in the County and mobile, area, and all other source emissions, to project future emissions and determine the strategies necessary for the reduction of stationary source emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by cities and the County. As such, projects that propose development consistent with the growth anticipated by the local general plans would be consistent with the Attainment Plan. If a project proposes development which is less dense than anticipated within the applicable General Plan, the project would likewise be consistent with the Attainment Plan. If a project proposes development that is greater than that anticipated in the applicable General Plan and SANDAG's growth projections upon which the Attainment Plan is based, the project may be in conflict with the Attainment Plan and SIP and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the project and the surrounding projects exceed the growth projections used in the Attainment Plan for the specific subregional area.

5.1.1 Town Center Specific Plan

As described above, the Attainment Plan and RAQS outline the steps needed to accomplish attainment of NAAQS and CAAQS by the earliest practicable date. Projects that would be consistent with adopted land use designations would not conflict with the plans. Projects that would not be consistent with the land uses may be inconsistent with the plans and warrant further analysis to determine consistency. If it can be demonstrated that changes in land uses would generate fewer air emissions than land uses that are consistent with adopted land use designations, the changes would not conflict with the Attainment Plan or RAQS.

The project would result in a comprehensive update to the existing TCSP involving expanding the TCSP area by 42 acres, updating the boundaries of the TCSP districts to create five neighborhoods within the TCSP, and identifying potential future residential and non-residential development potential within the TCSP area. Although development regulations and design criteria in the TCSP would replace the current TCSP regulations, development densities and intensities currently allowed throughout the TCSP area would not be increased by the project. As a result, the project would not increase the amount of vehicle traffic expected to be generated in the City. Similarly, the project would not increase the amount of traffic in the City and would not result in an increase in the average VMT per capita. As buildout of the project would not result in an increase in anticipated development or traffic generation over what

would occur under buildout of the adopted zoning and land use designations, the project would not result in an increase in emissions that are not already accounted for in the Attainment Plan or RAQS.

Therefore, buildout of the TCSP would not exceed the assumptions used to develop the Attainment Plan or RAQS, and impacts would be less than significant.

5.1.2 Arts and Entertainment Neighborhood

The TCSP would involve updated development standards and land use allowances with the AEN. However, because there is no change to allowed densities and intensities compared to existing zoning, buildout of the project would not result in traffic generation over what would occur under buildout of the adopted zoning and land use designations. Therefore, the project would not result in an increase in emissions that are not already accounted for in the Attainment Plan and RAQS.

Therefore, buildout of the AEN would not exceed the assumptions used to develop the Attainment Plan or RAQS, resulting in a less than significant impact.

5.1.3 Housing Element Sites

The project assumes the development of Housing Element sites 16A, 16B, 20A, and 20B consistent with the densities and intensities allowed by existing zoning, the 2021-2029 Housing Element, and state density bonus law. When compared to the existing zoning and land use designations, the project would not increase the development potential allowed at the four Housing Element sites, which would also not increase the amount of projected vehicle traffic generated in the City. The project would not increase the projected amount of traffic in the City and would not result in an increase in the average VMT per capita. As buildout of the project would not result in an increase in development or traffic generation over what would occur under buildout of the adopted zoning and land use designations, the project would not result in an increase in emissions that are not already accounted for in the Attainment Plan or RAQS.

Future development within Housing Element sites 16A, 16B, 20A, and 20B would not result in an increase in development or an increase in traffic generation over what would occur under buildout of the adopted zoning and land use designations and would therefore not result in an increase in emissions. Therefore, buildout of Housing Element sites 16A, 16B, 20A, and 20B would not exceed the assumptions used to develop the Attainment Plan or RAQS, resulting in a less than significant impact.

5.2 ISSUE 2: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

The project would generate criteria pollutants in the short-term during construction and the long-term during operation. To determine whether a project would result in a cumulatively considerable net increase in criteria pollutant emissions for which the project region is in non-attainment under an applicable federal or state AAQS, the project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD and applicable law (as shown in Table 8). The SDAB is in non-attainment for ozone (VOCs and NO_X are precursors), PM_{10}, and $PM_{2.5}$.

5.2.1 Construction Criteria Pollutant and Precursor Emissions

Construction emissions are described as "short-term" or temporary in duration; however, they have the potential to represent a significant impact with respect to air quality. Construction of the project would result in the temporary generation of VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions. VOC, NO_X, CO, and SO_2 emissions are primarily associated with mobile equipment exhaust, including off-road construction equipment and on-road motor vehicles. Fugitive PM dust emissions are primarily associated with site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and VMT by construction vehicles.

The project's temporary construction emissions were estimated using CalEEMod as described in Section 4.1 with emissions estimated separately for the four strategic HE sites and the rest of the TCSP. The results of the modeling of the project's construction emissions of criteria pollutants and ozone precursors are shown in Table 9, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the applicable daily thresholds. The complete CalEEMod output is provided in Appendix A to this report.

Table 9
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Source	Pollutant Emissions (pounds/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Four Strategic HE Sites	64.0	31.7	75.0	0.1	12.4	5.2
Town Center Specific Plan	12.0	95.2	121.1	0.2	20.0	10.0
Maximum Daily Emissions	**64.0**	**95.2**	**121.1**	**0.2**	**20.0**	**10.0**
Daily Thresholds	*75*	*250*	*550*	*250*	*100*	*67*
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod; SDAPCD 2019; County 2007
HE = Housing Element; VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 9, the project's temporary construction-related criteria pollutant and precursor emissions would be below the SDAPCD's emission thresholds, including for those pollutants for which the SDAB is non-attainment (VOC, NO_X, PM_{10}, $PM_{2.5}$). Therefore, the project's construction activities would not result in a cumulatively considerable net increase of criteria pollutant for which the project region is non-attainment under an applicable federal or state AAQS. Construction-related impacts would be less than significant.

5.2.2 Operational Criteria Pollutant and Precursor Emissions

The project's long-term maximum daily operational emissions were estimated using CalEEMod as described in Section 4.2 with emissions estimated separately for the four strategic HE sites and the rest of the TCSP. The results of the modeling of the project's operational emissions of criteria pollutants and precursors are shown in Table 10, *Maximum Daily Operational Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the applicable thresholds. The complete CalEEMod output is provided in Appendix A to this report.

Table 10
MAXIMUM DAILY OPERATIONAL EMISSIONS

Source	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Four Strategic HE Sites						
Mobile	33.1	23.5	219.8	0.5	44.9	11.7
Area	41.5	<0.1	83.9	<0.1	<0.1	<0.1
Energy	0.2	3.8	1.6	<0.1	0.3	0.3
Total Daily HE Site Emissions[1]	**74.8**	**27.2**	**305.4**	**0.5**	**45.2**	**12.0**
Daily Thresholds	*75*	*250*	*550*	*250*	*100*	*67*
Exceed Daily Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Town Center Specific Plan						
Mobile	167.0	105.5	1,197.2	3.3	332.0	85.4
Area	114.3	<0.1	224.5	<0.1	0.2	0.1
Energy	0.9	15.3	8.3	0.1	1.2	1.2
Total Daily TCSP Emissions[1]	**282.3**	**120.8**	**1,430.0**	**3.4**	**333.4**	**86.7**
Daily Thresholds	*75*	*250*	*550*	*250*	*100*	*67*
Exceed Daily Thresholds?	***Yes***	***No***	***Yes***	***No***	***Yes***	***Yes***

Source: CalEEMod (Appendix A); SDAPCD 2019; County 2007

[1] Totals may not sum due to rounding.

HE = Housing Element; VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 10 the long-term emissions of criteria pollutants and precursors generated by the four strategic HE sites would not exceed the SDAPCD daily screening thresholds, including for those pollutants for which the SDAB is non-attainment (VOC, NO_X, PM_{10}, $PM_{2.5}$). Therefore, the HE sites' operational activities would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state AAQS. However, full buildout of the TCSP would result in exceedances to SDAPCD's daily screening thresholds for VOC, CO, PM_{10}, and $PM_{2.5}$.

5.2.3 Mitigation Framework

On-road vehicles represent the primary source of operational emissions. The project includes several transportation projects including adding new multi-use pathways and bike routes to existing roadways as well as identifying roadway connections throughout the TCSP area and AEN. The TCSP identifies improvements along portions of existing Cuyamaca Street and Riverview Parkway, and identifies new roadways including Riverview Parkway, Cottonwood Avenue, Main Street, and Park Center Drive. The roadway improvements on Cuyamaca Street and Riverview Parkway would contribute to the multimodal transportation network by providing new bicycle and pedestrian facilities on those roadways, which would promote non-auto use. Additionally, the proposed roadway connections along Riverview Parkway, Cottonwood Avenue, Main Street, and Park Center Drive would provide direct connections through the TCSP area and AEN, as well as onto major arterial roadways and would improve traffic congestion in the area. The transportation projects identified in the TCSP meet the City's VMT Analysis Guidelines screening criteria of "closing gaps in the transportation network" and/or "adding new or enhanced bicycle or pedestrian facilities on existing streets" and are presumed not to increase vehicle travel. The transportation projects identified in the TCSP are intended to increase pedestrian and bicycle safety and connection within the TCSP area to aid in the reduction of VMT and mobile source emissions.

No specific development proposals are included for the programmatic elements of the project in the TCSP area and AEN, thus rendering the transportation projects' effects on VMT not readily quantifiable. As such, there would be no feasible mitigation to reduce the mobile source emissions.

The following mitigation measure would reduce potential area source emissions of the Project:

AQ-1 Use of electrically powered landscape equipment. Electric receptacles/outlets shall be installed at the exterior of all single-family units, all multi-family buildings (including those with affordable units), and all common area buildings, so that homeowners and landscape contractors hired by the homeowners' association may utilize electrically powered lawnmowers, leaf blowers, and chainsaws. Project plans shall include: (1) all necessary receptacles/outlets; and (2) a note that states "All landscape maintenance contracts provided by the applicable homeowners association must require that landscape contractors use electrically powered lawn mowers, leaf blowers, and chain saws." City staff must verify both requirements prior to approval of the final plans.

5.2.4 Significance After Mitigation

Electric lawn equipment including lawn mowers, leaf blowers, and chain saws are available. When electric landscape equipment is used in place of conventional gas-powered equipment, direct emissions from fossil fuel combustion are eliminated. Implementation of Measure AQ–1 would result in an average reduction of area source related VOC emissions by 20 percent (from 114.3 pounds per day to 91.5 pounds per day) and the virtual elimination of CO and particulate matter emissions. As shown in Table 11, *Maximum Daily Operational Emissions with Mitigation*, with implementation of mitigation measure AQ–1, VOC, CO, PM_{10}, $PM_{2.5}$ emissions would be reduced, but remain above their respective threshold.

Table 11
MAXIMUM DAILY OPERATIONAL EMISSIONS WITH MITIGATION

Source	Pollutant Emissions (pounds/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Town Center Specific Plan						
Mobile	167.0	105.5	1,197.2	3.3	332.0	85.4
Area	91.5	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	0.9	15.3	8.3	0.1	1.2	1.2
Total Daily TCSP Emissions[1]	**259.4**	**120.8**	**1,205.5**	**3.4**	**333.2**	**86.6**
Daily Thresholds	*75*	*250*	*550*	*250*	*100*	*67*
Exceed Daily Thresholds?	***Yes***	***No***	***Yes***	***No***	***Yes***	***Yes***

Source: CalEEMod (Appendix A); SDAPCD 2019; County 2007

[1] Totals may not sum due to rounding.

VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Impacts related to operational emissions from full buildout of the TCSP would be significant and unavoidable.

5.3 ISSUE 3: IMPACTS TO SENSITIVE RECEPTORS

The third threshold requires the evaluation of whether the project would expose sensitive receptors to substantial pollutant concentrations. Impacts to sensitive receptors are typically analyzed for operational period CO hotspots and exposure to TACs. An analysis of the project's potential to generate these pollutants thereby exposing existing sensitive receptors to these pollutants is provided below.

5.3.1 Localized Carbon Monoxide Hotspots

CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions) particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses such as residential areas, schools, and hospitals.

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. If a project increases average delay at signalized intersections operating at level of service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project, a quantitative screening is recommended.

The project includes several transportation projects including adding new multi-use pathways and bike routes to existing roadways as well as identifying roadway connections throughout the TCSP area and AEN. The TCSP identifies improvements along portions of existing Cuyamaca Street and Riverview Parkway, and identifies new roadway connections including Riverview Parkway, Cottonwood Avenue, Main Street, and Park Center Drive. The roadway improvements on Cuyamaca Street and Riverview Parkway would contribute to the multimodal transportation network by providing new bicycle and pedestrian facilities on those roadways, which would promote non-auto use. Additionally, the proposed roadway connections along Riverview Parkway, Cottonwood Avenue, Main Street, and Park Center Drive would provide direct connections through the TCSP area and AEN, as well as onto major arterial roadways and would improve traffic congestion in the area. The transportation projects identified in the TCSP meet the City's VMT screening criteria of "closing gaps in the transportation network" and/or "adding new or enhanced bicycle or pedestrian facilities on existing streets" and are presumed not to increase vehicle travel or intersection delay. Therefore, air quality impacts related to the exposure of sensitive receptors to substantial CO concentrations due to project traffic would be less than significant.

5.3.2 Exposure to Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state as TACs. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program. The state has formally identified more than 200 substances as TACs and is adopting appropriate control measures for their sources. The greatest potential for TAC emissions during construction would be emissions of DPM from heavy equipment operations and heavy-duty trucks. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.

- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. As shown in Table 8, the recommended incremental cancer risk threshold is 10 in a million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will develop cancer based on the use of standard OEHHA risk-assessment methodology.

Generation of DPM from construction projects typically occurs in a localized area (e.g., near locations with multiple pieces of heavy construction equipment working in close proximity) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction, the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. Concentrations of DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005).

The dose of TACs to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a source of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities.

Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA 2015). Moreover, as shown in Table 9, maximum daily particulate matter (i.e., PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and haul-truck trips during construction (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be well below the SDAPCD screening-level thresholds. Considering this information, and the fact that any concentrated use of heavy construction equipment would occur at various locations throughout the project site only for short durations, construction of the project would not expose sensitive receptors to substantial DPM concentrations, and the impact would be less than significant.

Additionally, CARB has published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as "schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities." The *Air Quality and Land Use Handbook: A Community Health Perspective* is a guide for siting new sensitive land uses. The enumerated facilities or sources include the following:

- High-traffic freeways and roads,
- Distribution centers,
- Rail yards,

- Ports,
- Refineries,
- Chrome plating facilities,
- Dry cleaners, and
- Large gas dispensing facilities.

CARB recommends that sensitive receptors not be located downwind or in proximity to such sources to avoid potential health hazards.

The project would not include any of the previously listed land uses, so it would not expose visitors, residents, or employees of the project to TAC emissions from these sources. Impacts would be less than significant.

5.4 ISSUE 4: ODORS

The fourth threshold requires an analysis of whether the project results in other emissions (such as those leading to odors) adversely affecting a substantial number of people. As discussed in Section 2, the State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the project site would be considered a significant odor impact.

The project could produce odors during proposed construction activities from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, compliance with the above referenced nuisance laws during construction would ensure that odor emissions would not adversely affect a substantial number of people. While odors related to construction may be perceptible, as described above, construction emissions would not result in pollutant concentrations that would be hazardous for sensitive receptors. Furthermore, odors emitted during construction would be temporary, short-term, localized to the immediate vicinity of the equipment, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people during construction, and impacts would be less than significant.

According to CARB, land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, industrial activities, composting, refineries, landfills, recycling facilities, dairies, and fiberglass molding facilities (CARB 2005). Once operational, future development implemented under the project would include residential and associated commercial uses that are generally not a source of objectionable odors. Therefore, project operation would not result in odors affecting a substantial number of people, and impacts would be less than significant.

6.0 List of Preparers

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Appendix A

CalEEMod Output

Santee TCSP HE Sites Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santee TCSP HE Sites
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	City of Santee
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	7.60
Location	32.84193077423488, -116.9764861508951
County	San Diego
City	Santee
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6529
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Mid Rise	988	Dwelling Unit	13.8	948,480	94,848	—	2,757	Sites 16A and 20B
Apartments Low Rise	303	Dwelling Unit	5.04	321,180	32,118	—	845	Site 20A
Condo/Townhouse	189	Dwelling Unit	5.57	200,340	20,034	—	527	Site 16B
Other Asphalt Surfaces	571	1000sqft	13.1	0.00	0.00	—	—	Paved area for all 4 site

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.43	64.0	21.7	75.0	0.06	0.59	11.8	12.4	0.55	2.81	3.32	—	18,902	18,902	0.84	1.01	51.1	19,275
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.06	63.9	31.7	68.5	0.06	1.37	11.8	12.4	1.26	3.98	5.23	—	18,244	18,244	0.87	1.04	1.33	18,575
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.16	28.0	20.4	47.8	0.05	0.63	7.66	8.29	0.58	2.01	2.60	—	12,398	12,398	0.58	0.66	14.2	12,624
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	5.11	3.72	8.72	0.01	0.11	1.40	1.51	0.11	0.37	0.47	—	2,053	2,053	0.10	0.11	2.35	2,090

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	6.69	5.87	21.6	68.1	0.06	0.59	10.0	10.6	0.55	2.39	2.94	—	17,067	17,067	0.77	0.94	48.2	17,413
2026	7.43	64.0	21.7	75.0	0.06	0.55	11.8	12.4	0.51	2.81	3.32	—	18,902	18,902	0.84	1.01	51.1	19,275
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	6.62	5.79	31.7	62.0	0.06	1.37	10.0	10.6	1.26	3.98	5.23	—	16,506	16,506	0.81	0.96	1.25	16,813
2026	7.06	63.9	22.4	68.5	0.06	0.55	11.8	12.4	0.51	2.81	3.32	—	18,244	18,244	0.87	1.04	1.33	18,575
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.16	4.49	20.4	47.8	0.05	0.63	7.66	8.29	0.58	2.01	2.60	—	12,398	12,398	0.58	0.66	14.2	12,624
2026	2.62	28.0	8.59	25.9	0.02	0.22	4.28	4.50	0.21	1.02	1.22	—	6,732	6,732	0.32	0.37	7.98	6,858
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.94	0.82	3.72	8.72	0.01	0.11	1.40	1.51	0.11	0.37	0.47	—	2,053	2,053	0.10	0.11	2.35	2,090
2026	0.48	5.11	1.57	4.72	< 0.005	0.04	0.78	0.82	0.04	0.19	0.22	—	1,115	1,115	0.05	0.06	1.32	1,135

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.																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	44.1	74.8	25.9	305	0.54	0.75	44.5	45.2	0.71	11.3	12.0	689	58,024	58,713	72.7	2.38	185	61,424

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	35.5	66.7	27.2	211	0.51	0.71	44.5	45.2	0.68	11.3	12.0	689	55,488	56,177	72.9	2.50	15.1	58,760
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	39.0	69.9	27.3	252	0.52	0.73	44.3	45.0	0.70	11.2	11.9	689	55,947	56,636	72.8	2.48	85.9	59,282
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.12	12.8	4.99	46.0	0.09	0.13	8.08	8.21	0.13	2.05	2.18	114	9,263	9,377	12.1	0.41	14.2	9,815

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.8	33.1	21.3	220	0.51	0.40	44.5	44.9	0.37	11.3	11.7	—	52,308	52,308	2.59	2.06	175	53,163
Area	7.86	41.5	0.81	83.9	< 0.005	0.04	—	0.04	0.03	—	0.03	0.00	224	224	0.01	< 0.005	—	225
Energy	0.44	0.22	3.78	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	5,445	5,445	0.89	0.07	—	5,487
Water	—	—	—	—	—	—	—	—	—	—	—	99.6	45.5	145	10.3	0.25	—	475
Waste	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Total	44.1	74.8	25.9	305	0.54	0.75	44.5	45.2	0.71	11.3	12.0	689	58,024	58,713	72.7	2.38	185	61,424
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.1	32.4	23.5	210	0.49	0.40	44.5	44.9	0.37	11.3	11.7	—	49,997	49,997	2.78	2.19	4.53	50,724
Area	0.00	34.1	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Energy	0.44	0.22	3.78	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	5,445	5,445	0.89	0.07	—	5,487
Water	—	—	—	—	—	—	—	—	—	—	—	99.6	45.5	145	10.3	0.25	—	475
Waste	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Total	35.5	66.7	27.2	211	0.51	0.71	44.5	45.2	0.68	11.3	12.0	689	55,488	56,177	72.9	2.50	15.1	58,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.7	32.0	23.1	209	0.49	0.40	44.3	44.7	0.37	11.2	11.6	—	50,345	50,345	2.72	2.17	75.4	51,135
Area	3.87	37.7	0.40	41.4	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	111	111	< 0.005	< 0.005	—	111
Energy	0.44	0.22	3.78	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	5,445	5,445	0.89	0.07	—	5,487
Water	—	—	—	—	—	—	—	—	—	—	—	99.6	45.5	145	10.3	0.25	—	475
Waste	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Total	39.0	69.9	27.3	252	0.52	0.73	44.3	45.0	0.70	11.2	11.9	689	55,947	56,636	72.8	2.48	85.9	59,282
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.33	5.83	4.22	38.1	0.09	0.07	8.08	8.15	0.07	2.05	2.12	—	8,335	8,335	0.45	0.36	12.5	8,466
Area	0.71	6.89	0.07	7.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	18.3	18.3	< 0.005	< 0.005	—	18.4
Energy	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	902	902	0.15	0.01	—	909
Water	—	—	—	—	—	—	—	—	—	—	—	16.5	7.53	24.0	1.70	0.04	—	78.6
Waste	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	342
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74
Total	7.12	12.8	4.99	46.0	0.09	0.13	8.08	8.21	0.13	2.05	2.18	114	9,263	9,377	12.1	0.41	14.2	9,815

3. Construction Emissions Details

3.1. 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	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
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	0.08	0.07	0.06	0.71	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	157	157	0.01	0.01	0.02	159
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	< 0.005	26.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	8.67	8.67	< 0.005	< 0.005	0.01	8.79
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.43
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	—	1.44	1.44	< 0.005	< 0.005	< 0.005	1.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. 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	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
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	0.47	0.39	3.66	3.49	0.01	0.15	—	0.15	0.14	—	0.14	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
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	0.09	0.07	0.67	0.64	< 0.005	0.03	—	0.03	0.03	—	0.03	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182

Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.0	25.0	< 0.005	< 0.005	< 0.005	26.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.3	22.3	< 0.005	< 0.005	0.04	22.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.09	3.09	< 0.005	< 0.005	< 0.005	3.22
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.69	3.69	< 0.005	< 0.005	0.01	3.74
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.53
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.68	1.41	13.1	16.3	0.03	0.54	—	0.54	0.50	—	0.50	—	2,997	2,997	0.12	0.02	—	3,007
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	1.68	1.41	13.1	16.3	0.03	0.54	—	0.54	0.50	—	0.50	—	2,997	2,997	0.12	0.02	—	3,007
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.14	0.96	8.86	11.1	0.02	0.37	—	0.37	0.34	—	0.34	—	2,034	2,034	0.08	0.02	—	2,041
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	0.21	0.17	1.62	2.02	< 0.005	0.07	—	0.07	0.06	—	0.06	—	337	337	0.01	< 0.005	—	338
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	4.67	4.30	3.26	49.3	0.00	0.00	9.01	9.01	0.00	2.11	2.11	—	10,110	10,110	0.47	0.35	37.9	10,265
Vendor	0.34	0.16	5.27	2.45	0.03	0.05	1.01	1.07	0.05	0.28	0.33	—	3,960	3,960	0.17	0.56	10.3	4,141
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	4.60	4.23	3.63	43.2	0.00	0.00	9.01	9.01	0.00	2.11	2.11	—	9,547	9,547	0.52	0.38	0.99	9,673
Vendor	0.33	0.15	5.47	2.52	0.03	0.05	1.01	1.07	0.05	0.28	0.33	—	3,962	3,962	0.17	0.56	0.27	4,133
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	3.09	2.84	2.45	29.8	0.00	0.00	6.09	6.09	0.00	1.43	1.43	—	6,537	6,537	0.33	0.25	11.1	6,633
Vendor	0.23	0.11	3.68	1.68	0.02	0.04	0.68	0.72	0.04	0.19	0.23	—	2,688	2,688	0.12	0.38	3.02	2,807
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	0.56	0.52	0.45	5.43	0.00	0.00	1.11	1.11	0.00	0.26	0.26	—	1,082	1,082	0.06	0.04	1.84	1,098

Vendor	0.04	0.02	0.67	0.31	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	445	445	0.02	0.06	0.50	465
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

3.7. Building Construction (2026) - Unmitigated

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

Location	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	1.60	1.34	12.3	16.2	0.03	0.47	—	0.47	0.44	—	0.44	—	2,997	2,997	0.12	0.02	—	3,007
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	1.60	1.34	12.3	16.2	0.03	0.47	—	0.47	0.44	—	0.44	—	2,997	2,997	0.12	0.02	—	3,007
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	0.56	0.47	4.28	5.63	0.01	0.16	—	0.16	0.15	—	0.15	—	1,041	1,041	0.04	0.01	—	1,045
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.78	1.03	< 0.005	0.03	—	0.03	0.03	—	0.03	—	172	172	0.01	< 0.005	—	173
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	4.48	3.85	2.95	46.1	0.00	0.00	9.01	9.01	0.00	2.11	2.11	—	9,905	9,905	0.47	0.35	34.7	10,056
Vendor	0.31	0.13	5.01	2.36	0.03	0.05	1.01	1.07	0.05	0.28	0.33	—	3,886	3,886	0.15	0.56	9.48	4,067
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	4.18	3.80	3.33	40.6	0.00	0.00	9.01	9.01	0.00	2.11	2.11	—	9,354	9,354	0.49	0.38	0.90	9,479
Vendor	0.30	0.13	5.21	2.40	0.03	0.05	1.01	1.07	0.05	0.28	0.33	—	3,889	3,889	0.15	0.56	0.25	4,060
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	1.44	1.31	1.15	14.3	0.00	0.00	3.12	3.12	0.00	0.73	0.73	—	3,280	3,280	0.17	0.13	5.20	3,328
Vendor	0.11	0.05	1.80	0.82	0.01	0.02	0.35	0.37	0.02	0.10	0.12	—	1,351	1,351	0.05	0.19	1.43	1,412
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	0.26	0.24	0.21	2.60	0.00	0.00	0.57	0.57	0.00	0.13	0.13	—	543	543	0.03	0.02	0.86	551
Vendor	0.02	0.01	0.33	0.15	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	224	224	0.01	0.03	0.24	234
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	—	0.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.09	0.07	0.68	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	145
Paving	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.49	142
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.1	49.1	< 0.005	0.01	0.12	51.4
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.02	12.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.71	4.71	< 0.005	< 0.005	< 0.005	4.92
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	—	2.11	2.11	< 0.005	< 0.005	< 0.005	2.14
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.82
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. 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	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	57.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	57.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.38	0.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.3	59.3	< 0.005	< 0.005	—	59.5
Architectural Coatings	—	25.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.81	9.81	< 0.005	< 0.005	—	9.84
Architectural Coatings	—	4.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.90	0.77	0.59	9.21	0.00	0.00	1.80	1.80	0.00	0.42	0.42	—	1,981	1,981	0.09	0.07	6.93	2,011
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	0.84	0.76	0.67	8.13	0.00	0.00	1.80	1.80	0.00	0.42	0.42	—	1,871	1,871	0.10	0.08	0.18	1,896
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	0.37	0.33	0.29	3.64	0.00	0.00	0.80	0.80	0.00	0.19	0.19	—	838	838	0.04	0.03	1.33	850

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	0.07	0.06	0.05	0.66	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	139	139	0.01	0.01	0.22	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	21.8	20.2	13.0	134	0.31	0.24	27.1	27.3	0.23	6.87	7.10	—	31,857	31,857	1.58	1.26	106	32,377
Apartments Low Rise	7.63	7.07	4.56	46.9	0.11	0.09	9.49	9.58	0.08	2.41	2.49	—	11,165	11,165	0.55	0.44	37.3	11,348
Condo/Townhouse	6.35	5.88	3.79	39.0	0.09	0.07	7.89	7.97	0.07	2.00	2.07	—	9,286	9,286	0.46	0.37	31.0	9,438
Other 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
Total	35.8	33.1	21.3	220	0.51	0.40	44.5	44.9	0.37	11.3	11.7	—	52,308	52,308	2.59	2.06	175	53,163

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	21.4	19.7	14.3	128	0.30	0.24	27.1	27.3	0.23	6.87	7.10	—	30,449	30,449	1.69	1.34	2.76	30,892
Apartments Low Rise	7.49	6.91	5.01	44.8	0.10	0.09	9.49	9.58	0.08	2.41	2.49	—	10,672	10,672	0.59	0.47	0.97	10,827
Condo/Townhouse	6.23	5.75	4.16	37.3	0.09	0.07	7.89	7.97	0.07	2.00	2.07	—	8,876	8,876	0.49	0.39	0.80	9,005
Other 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
Total	35.1	32.4	23.5	210	0.49	0.40	44.5	44.9	0.37	11.3	11.7	—	49,997	49,997	2.78	2.19	4.53	50,724
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.85	3.55	2.57	23.2	0.05	0.04	4.92	4.96	0.04	1.25	1.29	—	5,076	5,076	0.27	0.22	7.60	5,156
Apartments Low Rise	1.35	1.25	0.90	8.14	0.02	0.02	1.72	1.74	0.01	0.44	0.45	—	1,779	1,779	0.10	0.08	2.66	1,807
Condo/Townhouse	1.12	1.04	0.75	6.77	0.02	0.01	1.43	1.45	0.01	0.36	0.38	—	1,480	1,480	0.08	0.06	2.22	1,503
Other 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
Total	6.33	5.83	4.22	38.1	0.09	0.07	8.08	8.15	0.07	2.05	2.12	—	8,335	8,335	0.45	0.36	12.5	8,466

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	414	414	0.30	0.04	—	432
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.10	0.01	—	137
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	96.4	96.4	0.07	0.01	—	101
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	641	641	0.47	0.06	—	670
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	414	414	0.30	0.04	—	432
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.10	0.01	—	137
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	96.4	96.4	0.07	0.01	—	101
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	641	641	0.47	0.06	—	670

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	68.5	68.5	0.05	0.01	—	71.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	21.7	21.7	0.02	< 0.005	—	22.6
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	16.0	16.0	0.01	< 0.005	—	16.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	106	106	0.08	0.01	—	111

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Apartments Low Rise	0.12	0.06	1.04	0.44	0.01	0.08	—	0.08	0.08	—	0.08	—	1,317	1,317	0.12	< 0.005	—	1,321
Condo/Townhouse	0.11	0.06	0.98	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,246	1,246	0.11	< 0.005	—	1,249
Other 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

Total	0.44	0.22	3.78	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,804	4,804	0.43	0.01	—	4,818
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Apartments Low Rise	0.12	0.06	1.04	0.44	0.01	0.08	—	0.08	0.08	—	0.08	—	1,317	1,317	0.12	< 0.005	—	1,321
Condo/Townhouse	0.11	0.06	0.98	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,246	1,246	0.11	< 0.005	—	1,249
Other 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
Total	0.44	0.22	3.78	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,804	4,804	0.43	0.01	—	4,818
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.04	0.02	0.32	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	371	371	0.03	< 0.005	—	372
Apartments Low Rise	0.02	0.01	0.19	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	218	218	0.02	< 0.005	—	219
Condo/Townhouse	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	206	206	0.02	< 0.005	—	207
Other 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
Total	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	795	795	0.07	< 0.005	—	798

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	31.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	7.86	7.44	0.81	83.9	< 0.005	0.04	—	0.04	0.03	—	0.03	—	224	224	0.01	< 0.005	—	225
Total	7.86	41.5	0.81	83.9	< 0.005	0.04	—	0.04	0.03	—	0.03	0.00	224	224	0.01	< 0.005	—	225
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	31.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	34.1	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Products	—	5.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.71	0.67	0.07	7.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.3	18.3	< 0.005	< 0.005	—	18.4
Total	0.71	6.89	0.07	7.55	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	18.3	18.3	< 0.005	< 0.005	—	18.4

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	30.3	96.8	6.84	0.16	—	317
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.4	9.34	29.7	2.10	0.05	—	97.3
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	12.7	5.83	18.5	1.31	0.03	—	60.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	45.5	145	10.3	0.25	—	475

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	30.3	96.8	6.84	0.16	—	317
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.4	9.34	29.7	2.10	0.05	—	97.3
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	12.7	5.83	18.5	1.31	0.03	—	60.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	45.5	145	10.3	0.25	—	475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11.0	5.02	16.0	1.13	0.03	—	52.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.38	1.55	4.92	0.35	0.01	—	16.1
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.11	0.96	3.07	0.22	0.01	—	10.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.5	7.53	24.0	1.70	0.04	—	78.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	422
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	75.3	0.00	75.3	7.52	0.00	—	263
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	422
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	75.3	0.00	75.3	7.52	0.00	—	263
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	65.2	0.00	65.2	6.52	0.00	—	228
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.0	0.00	20.0	2.00	0.00	—	69.9
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	12.5	0.00	12.5	1.25	0.00	—	43.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	342

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)

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.30	2.30
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.30	2.30
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.12	1.12
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38	0.38
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74

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)

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description

Site Preparation	Site Preparation	1/1/2025	1/23/2025	6.00	20.0	—
Grading	Grading	1/24/2025	3/17/2025	6.00	45.0	—
Building Construction	Building Construction	3/18/2025	5/28/2026	6.00	375	—
Paving	Paving	5/29/2026	7/8/2026	6.00	35.0	—
Architectural Coating	Architectural Coating	1/1/2026	7/8/2026	6.00	162	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	2.00	4.38	367	0.29
Building Construction	Forklifts	Diesel	Average	4.00	7.50	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	5.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	4.00	6.56	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	5.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	1.00	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1,066	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	158	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	2.00	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—

Architectural Coating	Worker	213	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	2,976,750	992,250	0.00	0.00	34,258

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	—	—	135	0.00	—
Paving	0.00	0.00	0.00	0.00	13.1

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Apartments Low Rise	—	0%
Condo/Townhouse	—	0%
Other Asphalt Surfaces	13.1	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
Apartments Mid Rise	5,187	5,187	5,187	1,893,255	38,359	38,359	38,359	14,000,900
Apartments Low Rise	1,818	1,818	1,818	663,570	13,444	13,444	13,444	4,907,198
Condo/Townhouse	1,512	1,512	1,512	551,880	11,181	11,181	11,181	4,081,234
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	988
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	303
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	189
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2976750	992,250	0.00	0.00	34,258

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)
Apartments Mid Rise	3,350,179	45.1	0.0330	0.0040	6,993,495
Apartments Low Rise	1,058,452	45.1	0.0330	0.0040	4,110,320
Condo/Townhouse	780,448	45.1	0.0330	0.0040	3,886,734
Other Asphalt Surfaces	0.00	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)
Apartments Mid Rise	34,711,478	1,732,407
Apartments Low Rise	10,645,322	586,638
Condo/Townhouse	6,640,151	365,923
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	731	—
Apartments Low Rise	224	—
Condo/Townhouse	140	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.4	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	7.98	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

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

6.3. Adjusted Climate Risk Scores

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

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	45.1
AQ-DPM	25.7
Drinking Water	10.9
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	25.6
Traffic	48.6
Effect Indicators	—
CleanUp Sites	37.8
Groundwater	40.8
Haz Waste Facilities/Generators	84.7
Impaired Water Bodies	77.3

Solid Waste	9.67
Sensitive Population	—
Asthma	35.6
Cardio-vascular	30.2
Low Birth Weights	18.6
Socioeconomic Factor Indicators	—
Education	43.4
Housing	19.8
Linguistic	10.4
Poverty	16.6
Unemployment	28.2

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.11061209
Employed	1.296034903
Median HI	58.75785962
Education	—
Bachelor's or higher	47.36301809
High school enrollment	17.87501604
Preschool enrollment	14.26921596
Transportation	—
Auto Access	76.73553189
Active commuting	33.56858719
Social	—

2-parent households	27.65302194
Voting	75.72180162
Neighborhood	—
Alcohol availability	42.80764789
Park access	24.26536635
Retail density	59.4636212
Supermarket access	60.82381625
Tree canopy	8.135506224
Housing	—
Homeownership	43.19260875
Housing habitability	69.11330681
Low-inc homeowner severe housing cost burden	75.55498524
Low-inc renter severe housing cost burden	83.49801104
Uncrowded housing	47.26036186
Health Outcomes	—
Insured adults	74.51559091
Arthritis	0.0
Asthma ER Admissions	59.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	1.7
Cognitively Disabled	36.6
Physically Disabled	78.7

Heart Attack ER Admissions	49.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	48.8
Elderly	83.1
English Speaking	76.6
Foreign-born	6.0
Outdoor Workers	58.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	55.9
Traffic Density	49.3
Traffic Access	51.5
Other Indices	—
Hardship	31.7
Other Decision Support	—
2016 Voting	76.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	18.0
Healthy Places Index Score for Project Location (b)	34.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on acreage and total dwelling units provided in Town Center Specific Plan Buildout Summary (9-7-2023 Draft)
Construction: Construction Phases	Sites are vacant, no demo required. Building Construction phase working days reduced by 25% to achieve target buildout in 2026. Architectural coating phase adjusted to overlap second half of Building Construction and Paving.
Construction: Off-Road Equipment	Building construction equipment/hours increased by 25% due to shortened schedule.
Operations: Vehicle Data	Trip generation provided by Intersecting Metrics.
Operations: Hearths	No hearths installed.

Santee TCSP Program Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santee TCSP Program Construction
Construction Start Date	1/1/2027
Lead Agency	City of Santee
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	7.60
Location	32.84514001277044, -116.97668753144887
County	San Diego
City	Santee
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6529
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Strip Mall	148	1000sqft	33.2	148,060	0.00	—	—	—

Regional Shopping Center	6.16	1000sqft	2.20	6,160	0.00	—	—	—
Government (Civic Center)	46.8	1000sqft	11.4	46,810	0.00	—	—	—
Office Park	60.0	1000sqft	6.19	60,050	0.00	—	—	—
City Park	14.8	Acre	14.8	0.00	0.00	0.00	—	—
Condo/Townhouse	198	Dwelling Unit	10.6	209,880	0.00	—	552	—
Apartments Low Rise	217	Dwelling Unit	5.90	230,020	0.00	—	605	—

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.																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.2	12.0	94.8	121	0.20	3.70	16.3	20.0	3.40	6.57	9.98	—	26,438	26,438	1.09	0.65	20.6	26,679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.2	12.0	95.2	119	0.20	3.70	16.3	20.0	3.40	6.57	9.98	—	26,172	26,172	1.12	0.66	0.53	26,397
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.1	8.56	68.1	84.9	0.14	2.64	11.6	14.3	2.43	4.70	7.13	—	18,743	18,743	0.79	0.46	6.38	18,907

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.85	1.56	12.4	15.5	0.03	0.48	2.13	2.61	0.44	0.86	1.30	—	3,103	3,103	0.13	0.08	1.06	3,130

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	14.2	12.0	94.8	121	0.20	3.70	16.3	20.0	3.40	6.57	9.98	—	26,438	26,438	1.09	0.65	20.6	26,679
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	14.2	12.0	95.2	119	0.20	3.70	16.3	20.0	3.40	6.57	9.98	—	26,172	26,172	1.12	0.66	0.53	26,397
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	10.1	8.56	68.1	84.9	0.14	2.64	11.6	14.3	2.43	4.70	7.13	—	18,743	18,743	0.79	0.46	6.38	18,907
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.85	1.56	12.4	15.5	0.03	0.48	2.13	2.61	0.44	0.86	1.30	—	3,103	3,103	0.13	0.08	1.06	3,130

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Off-Road Equipment	2.64	2.21	19.9	18.6	0.03	0.80	—	0.80	0.73	—	0.73	—	3,427	3,427	0.14	0.03	—	3,439
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.64	2.21	19.9	18.6	0.03	0.80	—	0.80	0.73	—	0.73	—	3,427	3,427	0.14	0.03	—	3,439
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.89	1.58	14.2	13.3	0.02	0.57	—	0.57	0.52	—	0.52	—	2,450	2,450	0.10	0.02	—	2,459
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	2.60	2.43	< 0.005	0.10	—	0.10	0.10	—	0.10	—	406	406	0.02	< 0.005	—	407
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.11	50.2
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	< 0.005	50.2
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.39	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	93.4	93.4	< 0.005	< 0.005	0.14	94.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	< 0.005	0.03	35.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.5	15.5	< 0.005	< 0.005	0.02	15.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.69	5.69	< 0.005	< 0.005	0.01	5.94
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.60	2.18	20.0	20.2	0.03	0.84	—	0.84	0.77	—	0.77	—	3,788	3,788	0.15	0.03	—	3,801
Dust From Material Movement	—	—	—	—	—	—	5.48	5.48	—	2.82	2.82	—	—	—	—	—	—	—
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	0.47	0.40	3.65	3.69	0.01	0.15	—	0.15	0.14	—	0.14	—	627	627	0.03	0.01	—	629
Dust From Material Movement	—	—	—	—	—	—	1.00	1.00	—	0.51	0.51	—	—	—	—	—	—	—
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	0.07	0.06	0.04	0.72	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	160	160	0.01	0.01	0.52	162
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	0.07	0.06	0.05	0.63	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	151	151	0.01	0.01	0.01	153
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	0.05	0.04	0.04	0.46	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	109	109	0.01	< 0.005	0.16	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	0.03	18.3
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

3.5. Grading (2027) - Unmitigated

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

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

Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
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	2.51	2.11	18.3	19.5	0.04	0.75	—	0.75	0.69	—	0.69	—	4,718	4,718	0.19	0.04	—	4,734
Dust From Material Movement	—	—	—	—	—	—	2.57	2.57	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.38	3.34	3.56	0.01	0.14	—	0.14	0.13	—	0.13	—	781	781	0.03	0.01	—	784
Dust From Material Movement	—	—	—	—	—	—	0.47	0.47	—	0.19	0.19	—	—	—	—	—	—	—

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	0.08	0.07	0.05	0.82	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.59	186
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.1	72.1	< 0.005	0.01	0.16	75.4
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.72	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	173	173	0.01	0.01	0.02	175
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.2	72.2	< 0.005	0.01	< 0.005	75.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.52	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	125	125	0.01	< 0.005	0.18	126
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.6	51.6	< 0.005	0.01	0.05	53.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.6	20.6	< 0.005	< 0.005	0.03	20.9
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.54	8.54	< 0.005	< 0.005	0.01	8.91
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2027) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.72	9.25	0.02	0.24	—	0.24	0.22	—	0.22	—	1,714	1,714	0.07	0.01	—	1,720
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	0.16	0.13	1.23	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.47	1.35	0.94	15.7	0.00	0.00	3.23	3.23	0.00	0.76	0.76	—	3,494	3,494	0.16	0.13	11.3	3,547
Vendor	0.16	0.07	2.64	1.25	0.01	0.03	0.56	0.59	0.03	0.15	0.18	—	2,095	2,095	0.08	0.29	4.68	2,190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.45	1.31	1.18	13.8	0.00	0.00	3.23	3.23	0.00	0.76	0.76	—	3,300	3,300	0.18	0.13	0.29	3,344
Vendor	0.15	0.07	2.74	1.27	0.01	0.03	0.56	0.59	0.03	0.15	0.18	—	2,097	2,097	0.08	0.29	0.12	2,187
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	1.03	0.93	0.84	9.96	0.00	0.00	2.30	2.30	0.00	0.54	0.54	—	2,381	2,381	0.12	0.09	3.50	2,414
Vendor	0.11	0.05	1.94	0.90	0.01	0.02	0.40	0.42	0.02	0.11	0.13	—	1,499	1,499	0.06	0.21	1.45	1,564
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	0.19	0.17	0.15	1.82	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	394	394	0.02	0.01	0.58	400
Vendor	0.02	0.01	0.35	0.17	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	248	248	0.01	0.03	0.24	259
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.97	7.12	0.01	0.21	—	0.21	0.20	—	0.20	—	1,081	1,081	0.04	0.01	—	1,084
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	0.91	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	179	179	0.01	< 0.005	—	180
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.44	139
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.11	50.2
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	0.01	0.01	0.01	131

Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	< 0.005	50.2
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.39	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	93.4	93.4	< 0.005	< 0.005	0.14	94.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	< 0.005	0.03	35.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.5	15.5	< 0.005	< 0.005	0.02	15.7
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.69	5.69	< 0.005	< 0.005	0.01	5.94
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.59	0.80	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.5	95.5	< 0.005	< 0.005	—	95.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.27	0.19	3.13	0.00	0.00	0.65	0.65	0.00	0.15	0.15	—	699	699	0.03	0.03	2.27	709
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	0.29	0.26	0.24	2.75	0.00	0.00	0.65	0.65	0.00	0.15	0.15	—	660	660	0.04	0.03	0.06	669
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	0.21	0.19	0.17	1.99	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	476	476	0.02	0.02	0.70	483
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	0.04	0.03	0.03	0.36	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.12	79.9

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2027	12/31/2027	5.00	261	—
Site Preparation	Site Preparation	1/1/2027	12/31/2027	5.00	261	—
Grading	Grading	1/1/2027	12/31/2027	5.00	261	—
Building Construction	Building Construction	1/1/2027	12/31/2027	5.00	261	—
Paving	Paving	1/1/2027	12/31/2027	5.00	261	—
Architectural Coating	Architectural Coating	1/1/2027	12/31/2027	5.00	261	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	2.00	7.63	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	3.00	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	382	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	87.2	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	2.00	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	76.5	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	392	0.00	—
Grading	—	—	783	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

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
Strip Mall	0.00	0%
Regional Shopping Center	0.00	0%
Government (Civic Center)	0.00	0%
Office Park	0.00	0%
City Park	0.00	0%
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	589	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.4	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	7.98	annual hectares burned

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

6.2. Initial Climate Risk Scores

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

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.3. Adjusted Climate Risk Scores

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	45.1
AQ-DPM	25.7
Drinking Water	10.9
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	25.6
Traffic	48.6
Effect Indicators	—
CleanUp Sites	37.8
Groundwater	40.8
Haz Waste Facilities/Generators	84.7
Impaired Water Bodies	77.3
Solid Waste	9.67
Sensitive Population	—
Asthma	35.6
Cardio-vascular	30.2
Low Birth Weights	18.6
Socioeconomic Factor Indicators	—
Education	43.4
Housing	19.8

Linguistic	10.4
Poverty	16.6
Unemployment	28.2

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.11061209
Employed	1.296034903
Median HI	58.75785962
Education	—
Bachelor's or higher	47.36301809
High school enrollment	17.87501604
Preschool enrollment	14.26921596
Transportation	—
Auto Access	76.73553189
Active commuting	33.56858719
Social	—
2-parent households	27.65302194
Voting	75.72180162
Neighborhood	—
Alcohol availability	42.80764789
Park access	24.26536635
Retail density	59.4636212
Supermarket access	60.82381625
Tree canopy	8.135506224

Housing	—
Homeownership	43.19260875
Housing habitability	69.11330681
Low-inc homeowner severe housing cost burden	75.55498524
Low-inc renter severe housing cost burden	83.49801104
Uncrowded housing	47.26036186
Health Outcomes	—
Insured adults	74.51559091
Arthritis	0.0
Asthma ER Admissions	59.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	1.7
Cognitively Disabled	36.6
Physically Disabled	78.7
Heart Attack ER Admissions	49.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	48.8
Elderly	83.1
English Speaking	76.6
Foreign-born	6.0
Outdoor Workers	58.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	55.9
Traffic Density	49.3
Traffic Access	51.5
Other Indices	—
Hardship	31.7
Other Decision Support	—
2016 Voting	76.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	18.0
Healthy Places Index Score for Project Location (b)	34.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Assuming 25% of SP construction occurs in one year. Residences in Sites 16A, 16B, 20A, and 20B not included.
Construction: Construction Phases	Default construction activities assumed to occur over one year.

Santee TCSP Program 2035 Operations Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santee TCSP Program 2035 Operations
Operational Year	2035
Lead Agency	City of Santee
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	7.60
Location	32.845263451000434, -116.97647155078744
County	San Diego
City	Santee
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6529
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Strip Mall	592	1000sqft	133	592,258	59,225	—	—	—

Regional Shopping Center	24.6	1000sqft	8.81	24,625	2,462	—	—	—
Government (Civic Center)	187	1000sqft	45.7	187,223	18,722	—	—	—
Office Park	240	1000sqft	24.8	240,206	24,020	—	—	—
City Park	59.4	Acre	59.4	0.00	59.4	59.4	—	—
Condo/Townhouse	982	Dwelling Unit	50.9	1,040,920	104,092	—	2,740	—
Apartments Low Rise	1,170	Dwelling Unit	31.3	1,240,200	124,020	—	3,264	—
Apartments Mid Rise	988	Dwelling Unit	21.1	948,480	94,848	—	2,757	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	207	282	113	1,430	3.36	3.15	330	333	3.00	83.7	86.7	2,751	363,224	365,975	294	13.5	399	377,736
Mit.	183	259	111	1,206	3.35	2.99	330	333	2.88	83.7	86.6	2,751	362,615	365,366	294	13.5	399	377,125
% Reduced	12%	8%	2%	16%	< 0.5%	5%	—	< 0.5%	4%	—	< 0.5%	—	< 0.5%	< 0.5%	< 0.5%	< 0.5%	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	181	258	121	1,135	3.21	2.99	330	333	2.88	83.7	86.6	2,751	347,713	350,464	294	14.2	37.6	362,092
Mit.	181	258	121	1,135	3.21	2.99	330	333	2.88	83.7	86.6	2,751	347,713	350,464	294	14.2	37.6	362,092
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	189	265	119	1,232	3.19	3.05	324	327	2.91	82.2	85.1	2,751	346,040	348,791	294	13.9	186	360,470
Mit.	177	254	118	1,121	3.19	2.97	324	327	2.86	82.2	85.1	2,751	345,739	348,490	294	13.9	186	360,169
% Reduced	6%	4%	1%	9%	< 0.5%	3%	—	< 0.5%	2%	—	< 0.5%	—	< 0.5%	< 0.5%	< 0.5%	< 0.5%	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.5	48.3	21.7	225	0.58	0.56	59.2	59.7	0.53	15.0	15.5	455	57,291	57,746	48.7	2.30	30.8	59,680
Mit.	32.3	46.3	21.5	205	0.58	0.54	59.2	59.7	0.52	15.0	15.5	455	57,241	57,697	48.7	2.30	30.8	59,630
% Reduced	6%	4%	1%	9%	< 0.5%	3%	—	< 0.5%	2%	—	< 0.5%	—	< 0.5%	< 0.5%	< 0.5%	< 0.5%	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	181	167	95.9	1,197	3.26	1.78	330	332	1.66	83.7	85.4	—	331,590	331,590	13.4	12.1	371	335,895
Area	24.4	114	2.03	224	0.01	0.16	—	0.16	0.12	—	0.12	0.00	663	663	0.03	0.01	—	665
Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,207	30,207	3.86	0.30	—	30,392
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713

Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	207	282	113	1,430	3.36	3.15	330	333	3.00	83.7	86.7	2,751	363,224	365,975	294	13.5	399	377,736
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	180	165	106	1,127	3.11	1.78	330	332	1.66	83.7	85.4	—	316,742	316,742	14.2	12.8	9.62	320,916
Area	0.00	91.5	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,207	30,207	3.86	0.30	—	30,392
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	181	258	121	1,135	3.21	2.99	330	333	2.88	83.7	86.6	2,751	347,713	350,464	294	14.2	37.6	362,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	175	161	103	1,113	3.09	1.76	324	326	1.64	82.2	83.9	—	314,741	314,741	13.8	12.5	158	318,966
Area	12.0	103	1.00	111	0.01	0.08	—	0.08	0.06	—	0.06	0.00	327	327	0.01	< 0.005	—	328
Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,207	30,207	3.86	0.30	—	30,392
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	189	265	119	1,232	3.19	3.05	324	327	2.91	82.2	85.1	2,751	346,040	348,791	294	13.9	186	360,470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.0	29.4	18.7	203	0.56	0.32	59.2	59.5	0.30	15.0	15.3	—	52,109	52,109	2.28	2.07	26.2	52,808
Area	2.19	18.8	0.18	20.2	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	54.1	54.1	< 0.005	< 0.005	—	54.3
Energy	0.32	0.16	2.79	1.52	0.02	0.22	—	0.22	0.22	—	0.22	—	5,001	5,001	0.64	0.05	—	5,032
Water	—	—	—	—	—	—	—	—	—	—	—	74.8	127	201	7.70	0.19	—	449
Waste	—	—	—	—	—	—	—	—	—	—	—	381	0.00	381	38.0	0.00	—	1,332
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63

Total	34.5	48.3	21.7	225	0.58	0.56	59.2	59.7	0.53	15.0	15.5	455	57,291	57,746	48.7	2.30	30.8	59,680

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	181	167	95.9	1,197	3.26	1.78	330	332	1.66	83.7	85.4	—	331,590	331,590	13.4	12.1	371	335,895
Area	0.00	91.5	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,260	30,260	3.87	0.30	—	30,447
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	183	259	111	1,206	3.35	2.99	330	333	2.88	83.7	86.6	2,751	362,615	365,366	294	13.5	399	377,125
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	180	165	106	1,127	3.11	1.78	330	332	1.66	83.7	85.4	—	316,742	316,742	14.2	12.8	9.62	320,916
Area	0.00	91.5	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,207	30,207	3.86	0.30	—	30,392
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	181	258	121	1,135	3.21	2.99	330	333	2.88	83.7	86.6	2,751	347,713	350,464	294	14.2	37.6	362,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	175	161	103	1,113	3.09	1.76	324	326	1.64	82.2	83.9	—	314,741	314,741	13.8	12.5	158	318,966
Area	0.00	91.5	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Energy	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	30,233	30,233	3.86	0.30	—	30,419
Water	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Waste	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Total	177	254	118	1,121	3.19	2.97	324	327	2.86	82.2	85.1	2,751	345,739	348,490	294	13.9	186	360,169
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.0	29.4	18.7	203	0.56	0.32	59.2	59.5	0.30	15.0	15.3	—	52,109	52,109	2.28	2.07	26.2	52,808
Area	0.00	16.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.32	0.16	2.79	1.52	0.02	0.22	—	0.22	0.22	—	0.22	—	5,005	5,005	0.64	0.05	—	5,036
Water	—	—	—	—	—	—	—	—	—	—	—	74.8	127	201	7.70	0.19	—	449
Waste	—	—	—	—	—	—	—	—	—	—	—	381	0.00	381	38.0	0.00	—	1,332
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63
Total	32.3	46.3	21.5	205	0.58	0.54	59.2	59.7	0.52	15.0	15.5	455	57,241	57,697	48.7	2.30	30.8	59,630

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	90.9	83.6	49.4	621	1.71	0.93	173	174	0.87	44.0	44.9	—	173,908	173,908	6.88	6.24	195	176,133
Regional Shopping Center	7.77	7.35	3.25	37.0	0.09	0.05	8.73	8.78	0.05	2.21	2.26	—	8,965	8,965	0.48	0.40	9.80	9,104

Governm (Civic Center)	6.90	6.35	3.74	47.1	0.13	0.07	13.2	13.2	0.07	3.34	3.40	—	13,194	13,194	0.52	0.47	14.8	13,363
Office Park	14.7	13.6	8.01	101	0.28	0.15	28.1	28.3	0.14	7.14	7.28	—	28,213	28,213	1.12	1.01	31.6	28,574
City Park	1.05	0.97	0.57	7.17	0.02	0.01	2.00	2.01	0.01	0.51	0.52	—	2,008	2,008	0.08	0.07	2.25	2,034
Condo/T ownhous e	23.4	21.6	12.1	150	0.40	0.22	41.0	41.2	0.21	10.4	10.6	—	41,233	41,233	1.70	1.52	46.0	41,775
Apartme nts Low Rise	20.9	19.3	10.8	134	0.36	0.20	36.6	36.8	0.19	9.29	9.48	—	36,845	36,845	1.52	1.36	41.1	37,329
Apartme nts Mid Rise	15.4	14.3	8.00	99.2	0.27	0.15	27.1	27.2	0.14	6.86	7.00	—	27,224	27,224	1.12	1.00	30.4	27,582
Total	181	167	95.9	1,197	3.26	1.78	330	332	1.66	83.7	85.4	—	331,590	331,590	13.4	12.1	371	335,895
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	90.2	82.8	54.3	582	1.63	0.93	173	174	0.87	44.0	44.9	—	166,103	166,103	7.25	6.60	5.05	168,257
Regional Shopping Center	7.72	7.28	3.59	36.7	0.08	0.05	8.73	8.78	0.05	2.21	2.26	—	8,576	8,576	0.52	0.42	0.25	8,714
Governm ent (Civic Center)	6.84	6.29	4.12	44.2	0.12	0.07	13.2	13.2	0.07	3.34	3.40	—	12,602	12,602	0.55	0.50	0.38	12,765
Office Park	14.6	13.4	8.81	94.5	0.26	0.15	28.1	28.3	0.14	7.14	7.28	—	26,947	26,947	1.18	1.07	0.82	27,296
City Park	1.04	0.96	0.63	6.72	0.02	0.01	2.00	2.01	0.01	0.51	0.52	—	1,918	1,918	0.08	0.08	0.06	1,943
Condo/T ownhous e	23.2	21.4	13.3	142	0.39	0.22	41.0	41.2	0.21	10.4	10.6	—	39,390	39,390	1.80	1.61	1.19	39,917

Apartments Low Rise	20.7	19.1	11.9	127	0.35	0.20	36.6	36.8	0.19	9.29	9.48	—	35,198	35,198	1.61	1.44	1.07	35,669
Apartments Mid Rise	15.3	14.1	8.81	93.7	0.26	0.15	27.1	27.2	0.14	6.86	7.00	—	26,008	26,008	1.19	1.06	0.79	26,355
Total	180	165	106	1,127	3.11	1.78	330	332	1.66	83.7	85.4	—	316,742	316,742	14.2	12.8	9.62	320,916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	16.2	14.9	9.76	106	0.30	0.17	31.5	31.7	0.16	7.99	8.15	—	27,696	27,696	1.18	1.08	13.9	28,061
Regional Shopping Center	1.37	1.29	0.62	6.30	0.01	0.01	1.47	1.47	0.01	0.37	0.38	—	1,327	1,327	0.08	0.07	0.65	1,350
Government (Civic Center)	0.88	0.81	0.53	5.77	0.02	0.01	1.71	1.72	0.01	0.43	0.44	—	1,501	1,501	0.06	0.06	0.75	1,521
Office Park	2.63	2.42	1.58	17.3	0.05	0.03	5.11	5.14	0.03	1.30	1.32	—	4,493	4,493	0.19	0.18	2.26	4,552
City Park	0.19	0.17	0.11	1.23	< 0.005	< 0.005	0.36	0.37	< 0.005	0.09	0.09	—	320	320	0.01	0.01	0.16	324
Condo/Townhouse	4.17	3.85	2.39	25.9	0.07	0.04	7.45	7.49	0.04	1.89	1.93	—	6,568	6,568	0.29	0.26	3.29	6,657
Apartments Low Rise	3.73	3.44	2.14	23.1	0.06	0.04	6.65	6.69	0.03	1.69	1.72	—	5,869	5,869	0.26	0.24	2.94	5,948
Apartments Mid Rise	2.75	2.54	1.58	17.1	0.05	0.03	4.92	4.94	0.03	1.25	1.27	—	4,336	4,336	0.19	0.17	2.17	4,395
Total	32.0	29.4	18.7	203	0.56	0.32	59.2	59.5	0.30	15.0	15.3	—	52,109	52,109	2.28	2.07	26.2	52,808

4.1.2. Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	90.9	83.6	49.4	621	1.71	0.93	173	174	0.87	44.0	44.9	—	173,908	173,908	6.88	6.24	195	176,133
Regional Shopping Center	7.77	7.35	3.25	37.0	0.09	0.05	8.73	8.78	0.05	2.21	2.26	—	8,965	8,965	0.48	0.40	9.80	9,104
Government (Civic Center)	6.90	6.35	3.74	47.1	0.13	0.07	13.2	13.2	0.07	3.34	3.40	—	13,194	13,194	0.52	0.47	14.8	13,363
Office Park	14.7	13.6	8.01	101	0.28	0.15	28.1	28.3	0.14	7.14	7.28	—	28,213	28,213	1.12	1.01	31.6	28,574
City Park	1.05	0.97	0.57	7.17	0.02	0.01	2.00	2.01	0.01	0.51	0.52	—	2,008	2,008	0.08	0.07	2.25	2,034
Condo/Townhouse	23.4	21.6	12.1	150	0.40	0.22	41.0	41.2	0.21	10.4	10.6	—	41,233	41,233	1.70	1.52	46.0	41,775
Apartments Low Rise	20.9	19.3	10.8	134	0.36	0.20	36.6	36.8	0.19	9.29	9.48	—	36,845	36,845	1.52	1.36	41.1	37,329
Apartments Mid Rise	15.4	14.3	8.00	99.2	0.27	0.15	27.1	27.2	0.14	6.86	7.00	—	27,224	27,224	1.12	1.00	30.4	27,582
Total	181	167	95.9	1,197	3.26	1.78	330	332	1.66	83.7	85.4	—	331,590	331,590	13.4	12.1	371	335,895
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	90.2	82.8	54.3	582	1.63	0.93	173	174	0.87	44.0	44.9	—	166,103	166,103	7.25	6.60	5.05	168,257
Regional Shopping Center	7.72	7.28	3.59	36.7	0.08	0.05	8.73	8.78	0.05	2.21	2.26	—	8,576	8,576	0.52	0.42	0.25	8,714
Government (Civic Center)	6.84	6.29	4.12	44.2	0.12	0.07	13.2	13.2	0.07	3.34	3.40	—	12,602	12,602	0.55	0.50	0.38	12,765

Office Park	14.6	13.4	8.81	94.5	0.26	0.15	28.1	28.3	0.14	7.14	7.28	—	26,947	26,947	1.18	1.07	0.82	27,296
City Park	1.04	0.96	0.63	6.72	0.02	0.01	2.00	2.01	0.01	0.51	0.52	—	1,918	1,918	0.08	0.08	0.06	1,943
Condo/Townhouse	23.2	21.4	13.3	142	0.39	0.22	41.0	41.2	0.21	10.4	10.6	—	39,390	39,390	1.80	1.61	1.19	39,917
Apartments Low Rise	20.7	19.1	11.9	127	0.35	0.20	36.6	36.8	0.19	9.29	9.48	—	35,198	35,198	1.61	1.44	1.07	35,669
Apartments Mid Rise	15.3	14.1	8.81	93.7	0.26	0.15	27.1	27.2	0.14	6.86	7.00	—	26,008	26,008	1.19	1.06	0.79	26,355
Total	180	165	106	1,127	3.11	1.78	330	332	1.66	83.7	85.4	—	316,742	316,742	14.2	12.8	9.62	320,916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	16.2	14.9	9.76	106	0.30	0.17	31.5	31.7	0.16	7.99	8.15	—	27,696	27,696	1.18	1.08	13.9	28,061
Regional Shopping Center	1.37	1.29	0.62	6.30	0.01	0.01	1.47	1.47	0.01	0.37	0.38	—	1,327	1,327	0.08	0.07	0.65	1,350
Government (Civic Center)	0.88	0.81	0.53	5.77	0.02	0.01	1.71	1.72	0.01	0.43	0.44	—	1,501	1,501	0.06	0.06	0.75	1,521
Office Park	2.63	2.42	1.58	17.3	0.05	0.03	5.11	5.14	0.03	1.30	1.32	—	4,493	4,493	0.19	0.18	2.26	4,552
City Park	0.19	0.17	0.11	1.23	< 0.005	< 0.005	0.36	0.37	< 0.005	0.09	0.09	—	320	320	0.01	0.01	0.16	324
Condo/Townhouse	4.17	3.85	2.39	25.9	0.07	0.04	7.45	7.49	0.04	1.89	1.93	—	6,568	6,568	0.29	0.26	3.29	6,657
Apartments Low Rise	3.73	3.44	2.14	23.1	0.06	0.04	6.65	6.69	0.03	1.69	1.72	—	5,869	5,869	0.26	0.24	2.94	5,948
Apartments Mid Rise	2.75	2.54	1.58	17.1	0.05	0.03	4.92	4.94	0.03	1.25	1.27	—	4,336	4,336	0.19	0.17	2.17	4,395
Total	32.0	29.4	18.7	203	0.56	0.32	59.2	59.5	0.30	15.0	15.3	—	52,109	52,109	2.28	2.07	26.2	52,808

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	2,426	2,426	0.47	0.06	—	2,455
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.02	< 0.005	—	102
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	1,444	1,444	0.28	0.03	—	1,461
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	1,853	1,853	0.36	0.04	—	1,875
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	1,885	1,885	0.37	0.04	—	1,907
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,899	1,899	0.37	0.04	—	1,922
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,557	1,557	0.30	0.04	—	1,576
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,165	11,165	2.17	0.26	—	11,298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	2,426	2,426	0.47	0.06	—	2,455

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.02	< 0.005	—	102
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	1,444	1,444	0.28	0.03	—	1,461
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	1,853	1,853	0.36	0.04	—	1,875
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	1,885	1,885	0.37	0.04	—	1,907
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,899	1,899	0.37	0.04	—	1,922
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,557	1,557	0.30	0.04	—	1,576
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,165	11,165	2.17	0.26	—	11,298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	402	402	0.08	0.01	—	406
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	16.7	16.7	< 0.005	< 0.005	—	16.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.05	0.01	—	242
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	307	307	0.06	0.01	—	310
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	312	312	0.06	0.01	—	316

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	314	314	0.06	0.01	—	318
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	258	258	0.05	0.01	—	261
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,848	1,848	0.36	0.04	—	1,870

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	2,434	2,434	0.47	0.06	—	2,463
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.02	< 0.005	—	102
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	1,446	1,446	0.28	0.03	—	1,464
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	1,856	1,856	0.36	0.04	—	1,878
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	1,897	1,897	0.37	0.04	—	1,920
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,914	1,914	0.37	0.05	—	1,937
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,570	1,570	0.31	0.04	—	1,588

Total	—	—	—	—	—	—	—	—	—	—	—	—	11,218	11,218	2.18	0.26	—	11,352
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	2,426	2,426	0.47	0.06	—	2,455
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.02	< 0.005	—	102
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	1,444	1,444	0.28	0.03	—	1,461
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	1,853	1,853	0.36	0.04	—	1,875
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	1,885	1,885	0.37	0.04	—	1,907
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,899	1,899	0.37	0.04	—	1,922
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,557	1,557	0.30	0.04	—	1,576
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,165	11,165	2.17	0.26	—	11,298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	402	402	0.08	0.01	—	407
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	16.7	16.7	< 0.005	< 0.005	—	16.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.05	0.01	—	242

Office Park	—	—	—	—	—	—	—	—	—	—	—	—	307	307	0.06	0.01	—	311
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	313	313	0.06	0.01	—	317
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	316	316	0.06	0.01	—	319
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	259	259	0.05	0.01	—	262
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,853	1,853	0.36	0.04	—	1,875

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																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	821	821	0.07	< 0.005	—	824
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.2
Government (Civic Center)	0.18	0.09	1.61	1.35	0.01	0.12	—	0.12	0.12	—	0.12	—	1,921	1,921	0.17	< 0.005	—	1,927
Office Park	0.23	0.11	2.07	1.74	0.01	0.16	—	0.16	0.16	—	0.16	—	2,465	2,465	0.22	< 0.005	—	2,472
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Condo/Townhouse	0.60	0.30	5.10	2.17	0.03	0.41	—	0.41	0.41	—	0.41	—	6,472	6,472	0.57	0.01	—	6,490
Apartments Low Rise	0.47	0.23	4.01	1.71	0.03	0.32	—	0.32	0.32	—	0.32	—	5,087	5,087	0.45	0.01	—	5,101
Apartments Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Total	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	19,042	19,042	1.69	0.04	—	19,095
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	821	821	0.07	< 0.005	—	824
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.2
Government (Civic Center)	0.18	0.09	1.61	1.35	0.01	0.12	—	0.12	0.12	—	0.12	—	1,921	1,921	0.17	< 0.005	—	1,927
Office Park	0.23	0.11	2.07	1.74	0.01	0.16	—	0.16	0.16	—	0.16	—	2,465	2,465	0.22	< 0.005	—	2,472
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	0.60	0.30	5.10	2.17	0.03	0.41	—	0.41	0.41	—	0.41	—	6,472	6,472	0.57	0.01	—	6,490
Apartments Low Rise	0.47	0.23	4.01	1.71	0.03	0.32	—	0.32	0.32	—	0.32	—	5,087	5,087	0.45	0.01	—	5,101
Apartments Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Total	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	19,042	19,042	1.69	0.04	—	19,095
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Strip Mall	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	136	136	0.01	< 0.005	—	136
Regional Shopping Center	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.65	5.65	< 0.005	< 0.005	—	5.67
Government (Civic Center)	0.03	0.02	0.29	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	318	318	0.03	< 0.005	—	319
Office Park	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	408	408	0.04	< 0.005	—	409
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	0.11	0.05	0.93	0.40	0.01	0.08	—	0.08	0.08	—	0.08	—	1,072	1,072	0.09	< 0.005	—	1,074
Apartments Low Rise	0.09	0.04	0.73	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	842	842	0.07	< 0.005	—	844
Apartments Mid Rise	0.04	0.02	0.32	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	371	371	0.03	< 0.005	—	372
Total	0.32	0.16	2.79	1.52	0.02	0.22	—	0.22	0.22	—	0.22	—	3,153	3,153	0.28	0.01	—	3,161

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	821	821	0.07	< 0.005	—	824
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.2

Government	0.18	0.09	1.61	1.35	0.01	0.12	—	0.12	0.12	—	0.12	—	1,921	1,921	0.17	< 0.005	—	1,927
Office Park	0.23	0.11	2.07	1.74	0.01	0.16	—	0.16	0.16	—	0.16	—	2,465	2,465	0.22	< 0.005	—	2,472
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	0.60	0.30	5.10	2.17	0.03	0.41	—	0.41	0.41	—	0.41	—	6,472	6,472	0.57	0.01	—	6,490
Apartments Low Rise	0.47	0.23	4.01	1.71	0.03	0.32	—	0.32	0.32	—	0.32	—	5,087	5,087	0.45	0.01	—	5,101
Apartments Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Total	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	19,042	19,042	1.69	0.04	—	19,095
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	821	821	0.07	< 0.005	—	824
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.2
Government (Civic Center)	0.18	0.09	1.61	1.35	0.01	0.12	—	0.12	0.12	—	0.12	—	1,921	1,921	0.17	< 0.005	—	1,927
Office Park	0.23	0.11	2.07	1.74	0.01	0.16	—	0.16	0.16	—	0.16	—	2,465	2,465	0.22	< 0.005	—	2,472
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Condo/Townhouse	0.60	0.30	5.10	2.17	0.03	0.41	—	0.41	0.41	—	0.41	—	6,472	6,472	0.57	0.01	—	6,490
Apartments Low Rise	0.47	0.23	4.01	1.71	0.03	0.32	—	0.32	0.32	—	0.32	—	5,087	5,087	0.45	0.01	—	5,101

Apartme Mid Rise	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,241	2,241	0.20	< 0.005	—	2,248
Total	1.76	0.88	15.3	8.32	0.10	1.21	—	1.21	1.21	—	1.21	—	19,042	19,042	1.69	0.04	—	19,095
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	136	136	0.01	< 0.005	—	136
Regional Shopping Center	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.65	5.65	< 0.005	< 0.005	—	5.67
Governm ent (Civic Center)	0.03	0.02	0.29	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	318	318	0.03	< 0.005	—	319
Office Park	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	408	408	0.04	< 0.005	—	409
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Condo/T ownhous e	0.11	0.05	0.93	0.40	0.01	0.08	—	0.08	0.08	—	0.08	—	1,072	1,072	0.09	< 0.005	—	1,074
Apartme nts Low Rise	0.09	0.04	0.73	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	842	842	0.07	< 0.005	—	844
Apartme nts Mid Rise	0.04	0.02	0.32	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	371	371	0.03	< 0.005	—	372
Total	0.32	0.16	2.79	1.52	0.02	0.22	—	0.22	0.22	—	0.22	—	3,153	3,153	0.28	0.01	—	3,161

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	91.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	24.4	22.9	2.03	224	0.01	0.16	—	0.16	0.12	—	0.12	—	663	663	0.03	0.01	—	665
Total	24.4	114	2.03	224	0.01	0.16	—	0.16	0.12	—	0.12	0.00	663	663	0.03	0.01	—	665
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	91.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	91.5	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	16.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.19	2.06	0.18	20.2	< 0.005	0.01	—	0.01	0.01	—	0.01	—	54.1	54.1	< 0.005	< 0.005	—	54.3
Total	2.19	18.8	0.18	20.2	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	54.1	54.1	< 0.005	< 0.005	—	54.3

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	91.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	91.5	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	91.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	91.5	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	16.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	16.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

4.4. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	84.1	141	225	8.65	0.21	—	503
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.50	5.86	9.36	0.36	0.01	—	20.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	71.3	118	190	7.33	0.18	—	425
Office Park	—	—	—	—	—	—	—	—	—	—	—	81.8	136	218	8.42	0.20	—	488
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	66.1	114	180	6.80	0.16	—	399
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	78.8	136	214	8.10	0.20	—	475
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	114	181	6.84	0.16	—	401
Total	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	84.1	141	225	8.65	0.21	—	503
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.50	5.86	9.36	0.36	0.01	—	20.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	71.3	118	190	7.33	0.18	—	425

Office Park	—	—	—	—	—	—	—	—	—	—	—	81.8	136	218	8.42	0.20	—	488
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	66.1	114	180	6.80	0.16	—	399
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	78.8	136	214	8.10	0.20	—	475
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	114	181	6.84	0.16	—	401
Total	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	13.9	23.3	37.3	1.43	0.03	—	83.3
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.58	0.97	1.55	0.06	< 0.005	—	3.46
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	11.8	19.6	31.4	1.21	0.03	—	70.4
Office Park	—	—	—	—	—	—	—	—	—	—	—	13.5	22.5	36.1	1.39	0.03	—	80.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	10.9	18.8	29.8	1.13	0.03	—	66.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	13.0	22.5	35.5	1.34	0.03	—	78.7
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11.0	18.9	29.9	1.13	0.03	—	66.4
Total	—	—	—	—	—	—	—	—	—	—	—	74.8	127	201	7.70	0.19	—	449

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	84.1	141	225	8.65	0.21	—	503
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.50	5.86	9.36	0.36	0.01	—	20.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	71.3	118	190	7.33	0.18	—	425
Office Park	—	—	—	—	—	—	—	—	—	—	—	81.8	136	218	8.42	0.20	—	488
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	66.1	114	180	6.80	0.16	—	399
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	78.8	136	214	8.10	0.20	—	475
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	114	181	6.84	0.16	—	401
Total	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	84.1	141	225	8.65	0.21	—	503

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.50	5.86	9.36	0.36	0.01	—	20.9
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	71.3	118	190	7.33	0.18	—	425
Office Park	—	—	—	—	—	—	—	—	—	—	—	81.8	136	218	8.42	0.20	—	488
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	66.1	114	180	6.80	0.16	—	399
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	78.8	136	214	8.10	0.20	—	475
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	66.5	114	181	6.84	0.16	—	401
Total	—	—	—	—	—	—	—	—	—	—	—	452	765	1,217	46.5	1.12	—	2,713
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	13.9	23.3	37.3	1.43	0.03	—	83.3
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.58	0.97	1.55	0.06	< 0.005	—	3.46
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	11.8	19.6	31.4	1.21	0.03	—	70.4
Office Park	—	—	—	—	—	—	—	—	—	—	—	13.5	22.5	36.1	1.39	0.03	—	80.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	10.9	18.8	29.8	1.13	0.03	—	66.0

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	13.0	22.5	35.5	1.34	0.03	—	78.7
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11.0	18.9	29.9	1.13	0.03	—	66.4
Total	—	—	—	—	—	—	—	—	—	—	—	74.8	127	201	7.70	0.19	—	449

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	335	0.00	335	33.5	0.00	—	1,173
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.8
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,012
Office Park	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	421
City Park	—	—	—	—	—	—	—	—	—	—	—	2.75	0.00	2.75	0.27	0.00	—	9.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	391	0.00	391	39.1	0.00	—	1,369
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	466	0.00	466	46.6	0.00	—	1,631

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Total	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	335	0.00	335	33.5	0.00	—	1,173
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.8
Governm ent (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,012
Office Park	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	421
City Park	—	—	—	—	—	—	—	—	—	—	—	2.75	0.00	2.75	0.27	0.00	—	9.63
Condo/T ownhous e	—	—	—	—	—	—	—	—	—	—	—	391	0.00	391	39.1	0.00	—	1,369
Apartme nts Low Rise	—	—	—	—	—	—	—	—	—	—	—	466	0.00	466	46.6	0.00	—	1,631
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Total	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	55.5	0.00	55.5	5.55	0.00	—	194
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.31	0.00	2.31	0.23	0.00	—	8.07

Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	95.2	0.00	95.2	9.52	0.00	—	333
Office Park	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.99	0.00	—	69.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	0.00	—	1.59
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	64.8	0.00	64.8	6.48	0.00	—	227
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	77.2	0.00	77.2	7.71	0.00	—	270
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	65.2	0.00	65.2	6.52	0.00	—	228
Total	—	—	—	—	—	—	—	—	—	—	—	381	0.00	381	38.0	0.00	—	1,332

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	335	0.00	335	33.5	0.00	—	1,173
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.8
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,012

Office Park	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	421
City Park	—	—	—	—	—	—	—	—	—	—	—	2.75	0.00	2.75	0.27	0.00	—	9.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	391	0.00	391	39.1	0.00	—	1,369
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	466	0.00	466	46.6	0.00	—	1,631
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Total	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	335	0.00	335	33.5	0.00	—	1,173
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.8
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,012
Office Park	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.0	0.00	—	421
City Park	—	—	—	—	—	—	—	—	—	—	—	2.75	0.00	2.75	0.27	0.00	—	9.63
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	391	0.00	391	39.1	0.00	—	1,369
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	466	0.00	466	46.6	0.00	—	1,631

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	394	0.00	394	39.4	0.00	—	1,378
Total	—	—	—	—	—	—	—	—	—	—	—	2,299	0.00	2,299	230	0.00	—	8,043
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	55.5	0.00	55.5	5.55	0.00	—	194
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.31	0.00	2.31	0.23	0.00	—	8.07
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	95.2	0.00	95.2	9.52	0.00	—	333
Office Park	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	1.99	0.00	—	69.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	0.00	—	1.59
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	64.8	0.00	64.8	6.48	0.00	—	227
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	77.2	0.00	77.2	7.71	0.00	—	270
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	65.2	0.00	65.2	6.52	0.00	—	228
Total	—	—	—	—	—	—	—	—	—	—	—	381	0.00	381	38.0	0.00	—	1,332

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.69	3.69
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.46	0.46
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.46	7.46
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.88	8.88
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.69	3.69
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.46	0.46

Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.46	7.46
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.88	8.88
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47	1.47
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.12	1.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.69	3.69
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.46	0.46
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.46	7.46
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.88	8.88
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.69	3.69

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.46	0.46
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.46	7.46
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.88	8.88
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.0	28.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Government (Civic Center)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.23	1.23

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47	1.47
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.12	1.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.63	4.63

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. 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)

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. 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
Strip Mall	29,613	29,613	29,613	10,808,709	245,789	245,789	245,789	89,712,877
Regional Shopping Center	2,955	2,955	2,955	1,078,575	11,061	12,364	12,364	4,173,039
Government (Civic Center)	2,247	0.00	0.00	585,742	18,648	0.00	0.00	4,861,689
Office Park	4,804	4,804	4,804	1,753,504	39,874	39,874	39,874	14,554,178
City Park	342	342	342	124,798	2,838	2,838	2,838	1,035,834
Condo/Townhouse	7,856	7,856	7,856	2,867,440	58,096	58,096	58,096	21,205,141
Apartments Low Rise	7,020	7,020	7,020	2,562,300	51,914	51,914	51,914	18,948,586
Apartments Mid Rise	5,187	5,187	5,187	1,893,255	38,359	38,359	38,359	14,000,900

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Strip Mall	29,613	29,613	29,613	10,808,709	245,789	245,789	245,789	89,712,877
Regional Shopping Center	2,955	2,955	2,955	1,078,575	11,061	12,364	12,364	4,173,039

Government (Civic Center)	2,247	0.00	0.00	585,742	18,648	0.00	0.00	4,861,689
Office Park	4,804	4,804	4,804	1,753,504	39,874	39,874	39,874	14,554,178
City Park	342	342	342	124,798	2,838	2,838	2,838	1,035,834
Condo/Townhouse	7,856	7,856	7,856	2,867,440	58,096	58,096	58,096	21,205,141
Apartments Low Rise	7,020	7,020	7,020	2,562,300	51,914	51,914	51,914	18,948,586
Apartments Mid Rise	5,187	5,187	5,187	1,893,255	38,359	38,359	38,359	14,000,900

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	982
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1170
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	988
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	982
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1170
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	988
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

—	—	—	—	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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)
Strip Mall	5,220,493	170	0.0330	0.0040	2,562,947
Regional Shopping Center	217,059	170	0.0330	0.0040	106,563
Government (Civic Center)	3,106,885	170	0.0330	0.0040	5,995,447
Office Park	3,986,114	170	0.0330	0.0040	7,692,123
City Park	0.00	170	0.0330	0.0040	0.00
Condo/Townhouse	4,055,026	170	0.0330	0.0040	20,194,567
Apartments Low Rise	4,087,093	170	0.0330	0.0040	15,871,531
Apartments Mid Rise	3,350,179	170	0.0330	0.0040	6,993,495

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Strip Mall	5,220,493	170	0.0330	0.0040	2,562,947
Regional Shopping Center	217,059	170	0.0330	0.0040	106,563
Government (Civic Center)	3,106,885	170	0.0330	0.0040	5,995,447
Office Park	3,986,114	170	0.0330	0.0040	7,692,123
City Park	0.00	170	0.0330	0.0040	0.00
Condo/Townhouse	4,055,026	170	0.0330	0.0040	20,194,567
Apartments Low Rise	4,087,093	170	0.0330	0.0040	15,871,531
Apartments Mid Rise	3,350,179	170	0.0330	0.0040	6,993,495

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	43,870,043	885,068
Regional Shopping Center	1,824,036	36,793
Government (Civic Center)	37,193,742	279,785
Office Park	42,692,713	358,959
City Park	0.00	1,971
Condo/Townhouse	34,500,680	1,901,250
Apartments Low Rise	41,105,698	2,265,236
Apartments Mid Rise	34,711,478	1,732,407

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	43,870,043	885,068
Regional Shopping Center	1,824,036	36,793
Government (Civic Center)	37,193,742	279,785
Office Park	42,692,713	358,959
City Park	0.00	1,971
Condo/Townhouse	34,500,680	1,901,250
Apartments Low Rise	41,105,698	2,265,236
Apartments Mid Rise	34,711,478	1,732,407

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	622	—
Regional Shopping Center	25.9	—
Government (Civic Center)	1,067	—
Office Park	223	—
City Park	5.10	—
Condo/Townhouse	726	—
Apartments Low Rise	865	—
Apartments Mid Rise	731	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	622	—
Regional Shopping Center	25.9	—

Government (Civic Center)	1,067	—
Office Park	223	—
City Park	5.10	—
Condo/Townhouse	726	—
Apartments Low Rise	865	—
Apartments Mid Rise	731	—

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
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Government (Civic Center)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government (Civic Center)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Office Park	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Office Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Government (Civic Center)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government (Civic Center)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Office Park	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Office Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.4	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth

Wildfire	7.98	annual hectares burned

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

6.2. Initial Climate Risk Scores

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

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	45.1
AQ-DPM	25.7
Drinking Water	10.9
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	25.6
Traffic	48.6

Effect Indicators	—
CleanUp Sites	37.8
Groundwater	40.8
Haz Waste Facilities/Generators	84.7
Impaired Water Bodies	77.3
Solid Waste	9.67
Sensitive Population	—
Asthma	35.6
Cardio-vascular	30.2
Low Birth Weights	18.6
Socioeconomic Factor Indicators	—
Education	43.4
Housing	19.8
Linguistic	10.4
Poverty	16.6
Unemployment	28.2

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.11061209
Employed	1.296034903
Median HI	58.75785962
Education	—
Bachelor's or higher	47.36301809
High school enrollment	17.87501604

Preschool enrollment	14.26921596
Transportation	—
Auto Access	76.73553189
Active commuting	33.56858719
Social	—
2-parent households	27.65302194
Voting	75.72180162
Neighborhood	—
Alcohol availability	42.80764789
Park access	24.26536635
Retail density	59.4636212
Supermarket access	60.82381625
Tree canopy	8.135506224
Housing	—
Homeownership	43.19260875
Housing habitability	69.11330681
Low-inc homeowner severe housing cost burden	75.55498524
Low-inc renter severe housing cost burden	83.49801104
Uncrowded housing	47.26036186
Health Outcomes	—
Insured adults	74.51559091
Arthritis	0.0
Asthma ER Admissions	59.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0

Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	1.7
Cognitively Disabled	36.6
Physically Disabled	78.7
Heart Attack ER Admissions	49.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	48.8
Elderly	83.1
English Speaking	76.6
Foreign-born	6.0
Outdoor Workers	58.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	55.9
Traffic Density	49.3

Traffic Access	51.5
Other Indices	—
Hardship	31.7
Other Decision Support	—
2016 Voting	76.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	18.0
Healthy Places Index Score for Project Location (b)	34.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Land Uses and acreages based on Town Center Specific Plan Buildout Summary (9-7-2023 Draft).
Operations: Vehicle Data	Trip generation rates provided by Intersecting Metrics

Operations: Hearths	No hearths